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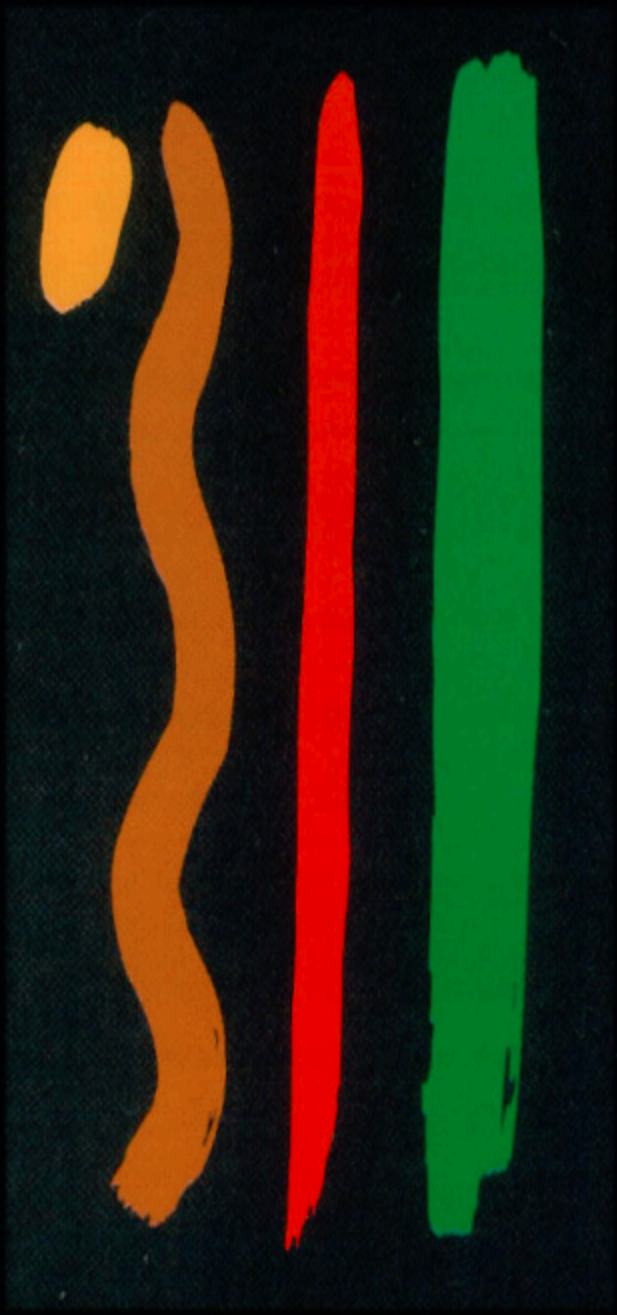

HAL CROOK

HOW TO IMPROVISE

AN APPROACH TO PRACTICING IMPROVISATION

BY

HAL CROOK

This PDF revised by Postiche & Patapon - 2005

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* Topic can be applied on drums.
+ Topic is considered by author to be an important *special effect* rather than fundamentally important to the study of improvising.

PREREQUISITES

A workable knowledge of scales, chords, chord progressions, sight reading, and a familiarity with the musical vocabulary (i. e. rhythms, melodies and harmonies) of early improvisational styles such as bebop, swing, Dixieland, blues, or rhythm and blues etc., is helpful to derive the maximum benefit from this book, especially if its study is unsupervised.

Preface

Every musician who has seriously tried to improvise knows that (for an instrumentalist) the art of improvising is no less than the ultimate musical challenge, demanding one's total musicianship in every moment of the act.

Today the subject is so vast, so potentially complex, involving a myriad of topics, aspects, techniques and materials, that even highly motivated students with comprehensive musical backgrounds have difficulty deciding where to begin or how to advance their study. The question often arises: "How will I ever learn to do *all* this?!"

The fundamental answer, of course, is: One step at a time. Though this doesn't explain specifically how to get the job done, it does help put the problem in perspective. But then what? What exactly are the steps that lead to ability? In which order should they be taken? What will be required to master each one? These are the questions I have explored in this book, resulting in a rather unique one-thing-at-a-time approach to studying improvisation – one that incorporates discipline, technique, creativity and musical intuition.

I practice the approach regularly, and have used it with considerable success to help students at numerous levels of development; some with only the minimum instrumental skill and musical background necessary to begin studying improvisation, and others more advanced – including professional players. It has been used by the Performance Studies Department of Berklee College of Music in Boston for teaching improvisation classes since September, 1988.

Learning to improvise, like learning anything that demands both technical and creative ability, depends mostly on you – the individual student. Teachers can only show examples of how it's done, and, as I have endeavored to do here, share ideas, materials and provide an organized approach to practicing which may bring you closer to achieving the goal, provided you do the necessary work.

So, good luck. May Melodicles, the ancient god of improvising, forever attend your gigs and smile upon your solos.

Hal Crook (Boston, 1990)

Introduction

The Target Approach

Due to the intricate nature of improvisation, many players choose to disregard the voluminous data available and take what I call the "Ready, Fire, Aim" approach to soloing. Essentially this is when you close your eyes, open your ears, blow your horn and hope for the best.

This approach has certain obvious advantages over "thinking" about what to play, since there is so much to think about. In fact, it is generally regarded as the ideal way to improvise precisely because it circumvents thinking and sets the stage for hearing and intuition to take over. These functions are understandably better suited for dealing with the demands of improvising, the mind being slower and more cumbersome in its responses. Improvising, indeed, began and evolved significantly through such natural or "non-thinking" means, but the development required performance opportunities which were both more conducive (e.g. harmonically simple) and numerous than they are today.

As an exclusive method of *practicing* improvisation, however, the "Ready, Fire, Aim" approach has serious limitations because of the considerable chance element involved. In other words, maybe your hearing and intuition will produce something new and valuable today which you can learn from, but maybe it won't. With a practice method so non-specific in its objective and so determined by chance, there's no guarantee you won't be "spinning your wheels" for a long time before something positive happens. Eventually, most serious students realize the need to organize and structure their method of learning in order to assure at least some regular progress, and hopefully go beyond what they could achieve through hearing and intuition alone. The "Ready, Fire, Aim" approach is right for *performing*, but the "Ready, Aim, Fire" approach should be used for *practicing*. The question is: How can it be applied to improvising?

One can observe that "free" improvisation – or improvising without musical restrictions such as intonation, chord changes, tempo, song form, etc. – is valid, worthwhile, fun to do, and important to experience and try to do well. (I'm not suggesting that you must master "free" improvising but that you can learn things of value from practicing it.) However, improvising creatively and musically *within* the framework of certain musical restrictions is a more demanding challenge because it requires discipline and accuracy, and, because of this, develops ability in the areas associated with the restrictions. This is the guiding principle of the approach I have developed for practicing improvising.

For example, if I select a single topic or aspect of improvisation (such as rhythmic time-feel, or phrasing, or motif development, or melodic accuracy, etc.) and focus my concentration on that topic alone while I improvise, I'm sure to develop more ability with that particular topic than if I solo without any specific objective. Other areas may suffer temporarily, but that's okay because they're not being targeted right now. I'll work on them later. By focusing my attention on only one topic at a time (i.e., creating a restriction or target), I increase my familiarity with the topic more quickly than I otherwise would, and consequently develop ability to work with it creatively and musically. After I've improved one area using this targeting approach, I move on to others, applying it in the same way.

It's not unlike the method a mechanic uses to learn about or repair certain parts of an engine. First, the parts are observed in a state of interaction to understand their purpose, function and relationship to the whole. Then, they are isolated (removed from the whole) where they can be examined individually, studied more closely, and fixed if necessary, i.e. improved. Finally, they are reassembled and tested again in relation to the rest of the engine.

Imagine trying to understand, correct or improve the general working order of anything comprised of numerous parts *without* going through this simplification process. You begin to see why many players make slow, erratic progress (if any) with their improvising, i.e. they don't break down the greater problem into simpler, more manageable ones.

It should be strongly emphasized that the target method is more appropriate for *practicing* improvisation than for performing. In performance versus practice situations, I would recommend that the improvising happen as naturally as possible, which means controlling it more by ear and intuition than by thinking. But the

important point is that after a sufficient amount of focused, concentrated practice, the individual topics targeted and studied will appear in your improvising by themselves, more naturally and intuitively, without you having to think about them much, or at all. This approach to practicing is actually a way of conditioning the intuition to balance and control the individual elements of soloing more musically. [Note: Students who discontinue practicing a topic because they're capable of achieving good results when they consciously try to demonstrate it must realize that much *repeated* practice is necessary at the conscious level in order to train the subconscious to respond accordingly.]

When you first begin to use this method of practicing, your improvising may sound somewhat predictable, limited, or unimaginative because of the restrictitions. But do not be concerned if your solos do not always feel or sound complete, like the "finished product", *when practicing.* Eventually they will sound much better than your usual finished product. Remember that you are focusing on only one aspect of improvising at a time when you practice, which challenges you to improvise accurately and musically within a limited area in order to develop greater ability in that area. This is the major difference between practicing and performing.

Of course, you should practice "performing" also, which means, in this case, playing without a specific objective or restriction. In this situation, you're freer to play whatever you want, which is the way it should be with performing. But this freedom can easily be abused if it's the *only* playing experience you have. You won't necessarily learn anything new from practicing without a particular objective (restriction), especially if your aim is to learn something specific. To learn something specific you must aim at one topic or aspect at a time with all your attention to fully understand, explore and improve that area alone, and as a result, strengthen your overall ability to improvise.

You've actually been using this one-thing-at-a-time method to learn music from "day one", since the first note, chord or scale you were given to practice. There is really nothing different about it here except that it is applied to topics related to improvising. The main thing, then, to keep in mind about practicing (versus performing) improvisation is: Improvise creatively and musically but within the framework of a selected restriction.

After practicing a single topic for a while (e.g. 30-40 minutes), it's important to spend time improvising without thinking about the restriction, i.e., by ear and intuition, and *notice what happens.* (Recording the solo is helpful for this.) Your soloing may sound more mature right away because of your readiness to improve - or it may take more time. But in either case, it's encouraging and reassuring to know that you're pursuing progress in an organized, methodical way, which sooner or later is bound to produce positive results.

Selecting topics to practice first, second, third, etc. is mostly an individual matter, depending on your readiness. My suggestion is to start at the beginning of this book and proceed at your own pace through the order in which the topics and materials are presented. After Section I, you may select them by preference, provided you: (1) understand them theoretically, (2) have an accurate aural image of what they should sound like, and (3) have enough instrumental skill to execute them.

You may choose to practice a particular topic for one day or for one year, depending on how much you feel you are benefiting (or could benefit) from practicing it, or depending on the fundamental importance of the topic and how severe your weakness is. It is not necessary to practice each topic to the point of mastery, though, before moving on to others. The first several topics of the book have been selected because of their basic importance to quality improvising, and because many students need improvement in these areas. Much can be learned also from repeating a topic after taking a break from it for a week, a month, or even longer.

How long you stay with a topic should also depend on how much you like it, or how interesting it is to practice. Enjoying the practicing experience is crucial if you expect to retain anything of musical value, or if you expect to continue practicing at all. The kind of enjoyment you get from practicing improvisation, though, is not necessarily the same as that of performing, especially if you are using the target approach. Practicing this way generally requires more discipline in order to stay focused on the objective of the exercise (the topic). This doesn't always come easily and therefore is sometimes hard to enjoy, but discipline is extremely valuable and with perseverance will become more natural. The way to ensure that you improve and have fun as well is to divide the day's practice time between working on individual topics and playing without any specific objective other than having fun, i.e. performing, focusing more on the spirit of the solo than the techniques involved.

Each topic in the book is explained and demonstrated using written musical examples. Many of these

examples have also been recorded to aid demonstration and are available on cassette tape. Such examples are indicated by the letter "R" appearing after the example's identification numbers. For instance, an example marked II:23R means: Section II, 23rd example, has been recorded. Melodic examples may occasionally require octave adjustments or transposition to other keys to accommodate the range limits of certain instruments. All topics are accompanied by suggested exercises and a sample daily practice schedule, which can be modified to fit your own needs or liking. In general, the exercises and practice routines you either create by yourself or have a hand in creating are the most effective.

Topics, Settings and Materials

For clarification, I have organized the components of improvising into three basic categories, labeled as follows: **When** To Play, **How** To Play, **What** To Play.

When To Play

The category When To Play deals with controlling the quantity of playing and resting done in an improvised solo. This is called "pacing". It emphasizes using space or rest as purposefully as one uses notes in order to balance activity with non-activity. Throughout the book, I refer to it also as the play/rest approach, meaning that the soloist plays an idea, rests, plays, rests, etc. Pacing is the first topic presented because, once learned, it enables players to relax and exercise maximum control over their improvising. The play/rest approach, therefore, will be used to practice all other topics and aspects of soloing.*

How To Play

The category How To Play involves those topics relating to solo structure, content and execution. Examples included in the book are: Motific playing, motif development, time-feel, stretching the time, articulation, phrasing, rhythmic density (activity level), syncopation, swing 8th notes, dynamics, registers, melodic range, and various special effects.*

What To Play

The category What To Play is comprised of numerous sources used to derive melody in an improvised solo, such as: Guide-tones, chord tones, tensions, chord scales, song melody, melodic embellishments, lower and upper structure triads, scale patterns, and non-harmonic structures.*

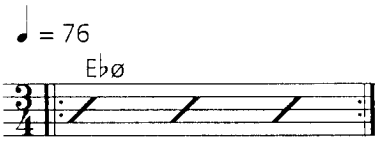
* See Table of Contents for page numbers of individual topics.

After Section I, the order of topics in the book becomes a suggested order. You could, for instance, decide to work for a while only on topics relating to How To Play, then change to topics from What To Play, or vice versa. The important things to remember are: (1) to make some progress with "pacing" (When To Play) first so you can use it to practice all other topics, and (2) to be reasonably sure you are musically prepared to practice a topic *before* you begin.

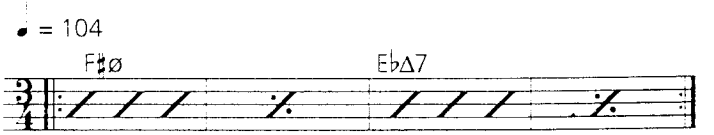
Harmonic Settings

All topics should be practiced in the following harmonic settings, which present different challenges and degrees of difficulty:

1. **Single chord** - One chord only, unlimited duration (modal style). Use various chord types, keys, time signatures and tempos. Examples:



2. **Chord patterns** - 2 or more chords, limited durations. Use various chord types, harmonic rhythms, keys, time signatures and tempos. Use conventional and unconventional chord combinations. Examples:



3. **Tune progressions** - Complete chord progressions of standard songs in various idioms, styles, time signatures, keys and tempos.

   [Note: Certain topics (e. g. pacing) can/should be practiced in all harmonic settings using an appropriate single pitch (note) and rhythm first, and later with normal melody.]

*4. **Without chords** (Using topics from WHEN TO PLAY and HOW TO PLAY only.) - No harmonic restriction, but in tempo with metronome accompaniment. Use "free" melody and rhythm.

   *[Note: Depending on a player's prior experience and ability, it's possible to learn a lot more about a particular topic (and improvising in general) when the problem of melodic accuracy is eliminated by removing the chords. This allows the player freedom to explore and experiment with melodic shapes and rhythmic ideas without being inhibited by a chord progression. (With less experienced players, however, this may present the problem of too many choices, or too much freedom, and in such cases should perhaps be postponed.) Ironically, the fluency and confidence this kind of practicing develops can make improvising on chords a lot easier, i. e. less stressful. One discovers that the melodic and rhythmic strength of an idea enables it to "work" even though its relationship to the harmony is less than totally accurate. This helps to overcome the fear of playing "wrong" notes on chords. It should be thought of as an additional way of practicing which develops the rhythmic and melodic aspects of soloing, not as a substitute for practicing with chords.]

Modes of Accompaniment

Use the following modes of accompaniment to practice the individual topics in various harmonic settings:

1. comping tape/play-along record
2. metronome only

*3. another player (any instrumentation)

4. no accompaniment

*[Note: Improvising in various harmonic settings with one other player for accompaniment is especially good practice, regardless of the instrumentation. One player can solo while the other plays background (or rests), or both can solo simultaneously. Compared with larger size groups (trios, quartets, etc.), the "duo" situation makes it easier to develop the abiltiy to split your attention and concentration between what you are playing and what is happening around you, which is essential for musical communication.]

Tempo

Try to use each of the following tempos (with *appropriate* exercises) every day - or every other day.

1. medium (easy or comfortable)
2. as *slow* as you can effectively play
3. as *fast* as you can effectively play
4. *no* tempo (rubato or "free")

[Note: For best results with new or difficult exercises use a medium (comfortable) tempo. For a greater challenge with these exercises use "as *slow*" or "as *fast* as you can effectively play". It is also a good exercise to simply practice improvising at very slow and very fast tempos, as well as rubato, perhaps for 5 or 10 minutes every other day, using a *familiar* harmonic setting so that you can concentrate easily on overcoming the unique difficulties presented by each extreme.]

Equipment and Materials

Practice aids for the exercises discussed in the book include a metronome, comping tapes or play-along records* (which you can buy or make for yourself), and two tape recorders: One to play the comping tapes while you improvise, and the other to record your practicing and solos for critique and transcription.

Listening to recordings of your solos often is extremely valuable because it makes you more aware of the strengths and weaknesses in your playing. This, in turn, helps you measure progress and make better decisions regarding what and how to practice.

* The author has recorded play-along tapes called "Creative Comping for Improvisation - Volumes I, II, III", published by Advance Music. These recordings contain 30 chord progressions, available on CD or cassette.

*Applying Topics to Drums**

Drummers are encouraged to apply all appropriate topics in their solos thinking melodically (like a horn player) as well as "drumistically". When practicing with a live rhythm section, piano (or guitar) and bass players should comp for drum solos like they would for horn solos, e.g. the bass player walks a line through the chord progression while the piano player comps the chords, etc. Drummers can use a comping tape or play-along record of a tune progression - preferably without the drum track - to practice a topic when a live rhythm section is not available. In such cases, drummers should also practice soloing *without* using the hi-hat to keep time, sometimes using only one hand (or foot) to solo with, or hands only, etc.

I often advise drummers to begin singing along with pitched instrument solos on records (using scat syllables) because it teaches them to hear and think more melodically, using space, phrasing, dynamics, etc. in different ways. After some experience with this they should try controlling parts of their own solos vocally, i.e. playing only the rhythms and ideas that they sing. Combining this approach with a more drumistic way of playing creates variety and enhances the musicality of the solo.

[Note: Drummers should use *concerted* cymbal and drum attacks to execute sustained notes in solos (i. e. letting the cymbal ring), and drum attacks only to execute short notes.]

* See Table of Contents for appropriate topics.

About Practicing

The best advice I can offer about getting positive results from practicing is this: Spend a lot of time on a few topics every day, or spend a little time on many different topics every day, or do both, but spend time on the SAME topics every day. Continue this religiously until you either notice progress or realize that the practice material is inappropriate for one reason or another and change it. Thirty consecutive days is a reasonable time limit for practicing a topic, but judge for yourself. Improvement is usually proportionate to the time spent on each area and the effectiveness of the exercises used.

A personal daily practice routine is invaluable for carrying out this advice. It eliminates the out-of-control feeling one can get from wondering every day what to practice, how to practice, how long to practice, etc. A practice routine provides a way of seeing and measuring progress in specific areas, which is important for your spirit and enthusiasm. It enables you to take responsibility for your own development, teaching you how to teach yourself at your own pace, in more or less your own way, with the minimum guidance necessary. It also builds confidence in yourself, making you less dependent on others for correction and direction.

Organize and structure the practice routine any way you want. After all, who knows better than you the areas you need, want and are ready to improve? Be sure to put the routine in writing, also. Things have a way of getting done, or at least of getting some attention, when they're written down. The key thing about having a practice routine is simply to follow through - to use it.

Even creating an effective practice routine may take practice! You may have to experiment for a while before finding the "right" combination of topics, exercises and time allotments. But give it a try. There's nothing to lose and everything to gain. Ask yourself how much you've improved over the past 6 months with your current practice methods and habits. If you've accomplished a lot, then keep doing it. But if you can't see significant improvement in at least some areas, or if you can't determine whether you've improved or not, you could benefit greatly from a practice routine, provided you follow it and use it every day.

More thoughts about practicing...

Meaningful improvement only happens one way - gradually, over time. No matter how long or productive a single practice period is, you can only accomplish a little in one session. But from practicing the same material for many sessions, *even for only a short time in each session,* you can make sure and steady progress and eventually accomplish a lot.

Clarity of mind while practicing has a direct bearing on how much you retain, learn and improve. Ideally, the mind should be empty or unoccupied except for the action and sound of performing the music. Try holding your attention on the sound of one (sustained) note or a simple repetitive exercise for several minutes at the beginning of each practice session. This will help get your mind centered and focused. It's easier to stay focused if you start out that way.

Don't be in too great a hurry to improve. To paraphrase an old Zen parable: If you're in a hurry and practice 2 hours a day, it may take 5 years to learn something. If you're in a hurry and practice 5 hours a day, it may

take 10 years to learn something. If you're in a hurry and practice 10 hours a day, you may never learn anything! Being in a hurry means your mind is in the future. Regardless of how much you practice, you'll never retain enough to learn something if your mind is not where the learning takes place - in the present.

Practice what you cannot already do well. Be willing to sound bad or weak at first in order to sound good later, because that's the only way it ever happens.

Everything can be thought of as practice, in one form or another, even important gigs, concerts, recitals, recordings, etc. These events are simply great opportunities to learn, i.e. to practice for your next playing opportunity, which, when it comes (and it always does), will be yet another learning/practicing experience.

Don't wait until you feel that your solos are technically "note-perfect" before you practice putting spirit and conviction into your music, because in that case you probably never will. These attributes are essential to quality improvising and need to be isolated and practiced right along with other more mechanical aspects.

Practicing can be a therapeutic experience if you first accept your present level of ability, then enjoy the process of working to improve, one step at a time. This should be relatively easy to do with the help of a practice routine.

In summary:

5-Phase Practice Strategy

1. SET A GOAL / LIMIT.
   Choose one to several topics or areas to practice daily. If you choose more than three topics, consider practicing them as follows: One topic for one hour, another topic for 30 minutes, the remaining topics for 15-20 minutes each. (However, limit yourself to six topics or less for the best results, or rotate two different practice routines on a daily basis. See pages 28, 29.)

2. UNDERSTAND EACH TOPIC.
   Have a clear mental and theoretical grasp of each topic *before* you start practicing it, as well as an accurate aural image/impression of how it should sound. (The aural image is all-important because it gives you a model to imitate and sets a standard to aim for.)

3. DEVELOP A PLAN.
   Create your own *realistic* exercises (i.e. practice routines) for each topic you choose to practice, or use the ones I've suggested. Assign your own time allotments. Exercises may be designed to combine various areas, e.g. melodic minor scales using triplets and syncopation. Practice appropriate topics (e. g. scales) mechanically (in exercise patterns) as well as creatively (in an improvisational context). *Use moderately to extremely restrictive exercises for each topic.* Don't forget to include time (each day) for soloing for the fun of it, i. e. putting spirit and conviction in the music.

   [Note: Make sure the exercises you practice for any given topic are technically and musically challenging – but not impossible or completely beyond your ability to execute.]

4. CARRY OUT THE PLAN.
   Just do it. Follow through. "Live" the plan daily, using the same or similar exercises. Change the routine only when you feel it is absolutely necessary.

5. CRITIQUE THE RESULTS.
   Record parts of your practicing daily for the purposes of discovering *specific* strengths and weaknesses, measuring progress, noting the effectiveness of the exercises used, *and comparing your playing to recorded examples of professional players at higher levels.* (The insight and awareness gained from this activity *alone* can have dramatic effects on your ability to improvise because just performing the music often takes most of your energy, leaving little or none for *observation* – which is essential for improvement. Listening analytically to playbacks of your practicing gives your ears what a mirror gives your eyes: an accurate mental self-impression - which can be used to guide and measure your progress. Analytical listening means asking yourself the questions: "Is what I played musical?", and, "What would make it *more* musical?") Try to limit serious criticism to only the area(s) targeted by the exercise used. For example, if the exercise focuses on time-feel, don't be too critical of the melodic accuracy throughout the solo, and vice versa.

Pacing - The "Play/Rest Approach"

Controlling the quantity of playing and resting done in an improvised solo.

Music can be thought of as a sound/silence relationship, and therefore space, or rest, should be considered an important feature. We normally (naturally) spend much more time practicing the "sound" aspect of this relationship than the "silence", and consequently our solos can tend to lack balance in this area. The balance between playing and resting - or any pair of "opposites" - need not be equal, just musical or desirable. Throughout certain sections of a solo it should be obvious that the player is purposely controlling the use of rest or space to achieve a desired balance.

Surrounding ideas with rest gives them shape and defintion, in much the same way a frame or border defines a picture inside. It allows time for the effects of the ideas to be heard, realized and appreciated by the audience, the band, and most of all, you - the player. Pacing is used to contrast, balance and build toward climactic sections of a solo, which can involve more continuous, high-energy playing. These peak points typically occur at or near the end of a solo, but may happen in the beginning or middle as well. Their effectiveness, however, depends largely on how well the solo is paced both before and after the climaxes are reached.

One of the most beneficial features of the play/rest approach is that it provides the player with opportunities to exercise and maintain control over the direction of the solo, which can easily be lost soon after the start when you play continuously. It also creates an ideal situation for practicing individual topics because "resting" enables the player to focus (or re-focus) attention on the particular topic being studied.

Another *very* important aspect of pacing is that it allows space for interaction to occur between the soloist and the accompanying players in a performance situation, which is crucial for communication.

Even those players with the minimum instrumental proficiency required to begin improvising are ready to practice pacing and learn how to use space more creatively and musically in their solos, and so it is a good place to begin.

Pacing - Exercise #1: "The General Idea"

Improvise *in tempo* while focusing on the general idea of pacing throughout the solo, i.e. play an idea, rest, play, rest, etc. Use the following harmonic settings:

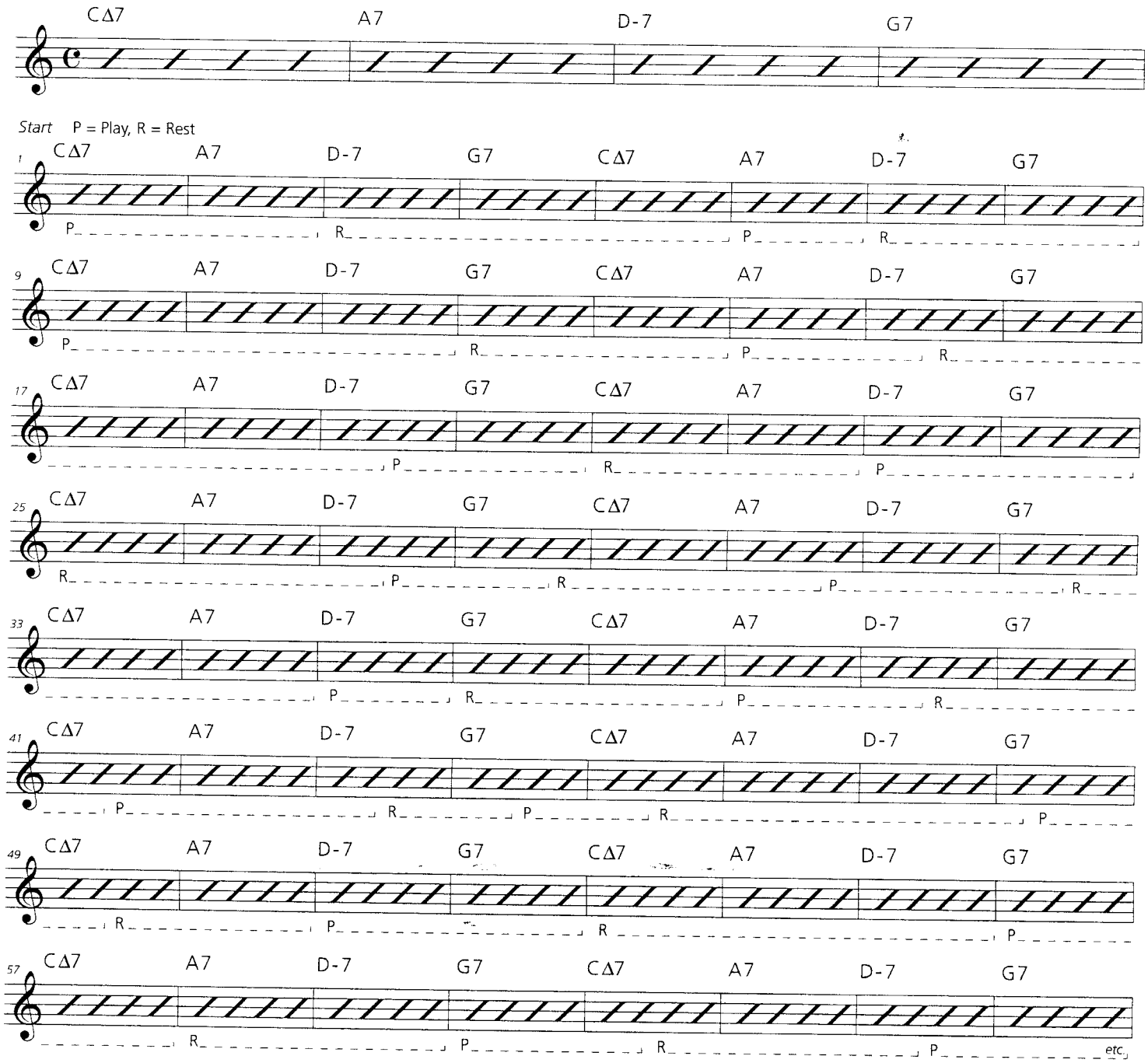
1. one chord only (unlimited duration)
2. a chord pattern (limited duration each chord)
3. a familiar tune progression (using an appropriate single pitch and rhythm first, then normal melody)
4. *no* chords

Practice each harmonic setting with accompaniment, e.g. metronome, comping tape, rhythm section (or another player), and also without accompaniment. Continue this for several minutes at a time. Change the tempo, keys, chords and accompaniment as you like, e.g., daily, weekly, monthly, etc. *Use easier harmonic settings and tempos in the beginning for better results.*

At first, the only objective is to become more comfortable and familiar with resting during a solo, so for now play short (1-2 bars) and rest long (2 - 4+ bars) at a medium tempo. I advise players to feature *frequent* periods of rest, and to *exaggerate* the lengths of rest when they are first learning; to rest until they think it's enough, then rest a little more, *then* play. Taking it to an extreme will help you learn more quickly. Later on you can feature frequent periods of shorter rest and less frequent periods of longer rest to create variety in the pacing.

Example I:1 Pacing (play / rest)

Harmonic setting: chord pattern - 4 beats each chord



IMPORTANT:

Focus on holding back your entrances, i.e. *play on your second or third impulse to play, rather than your first.* Notice that you *could* play at any time but are consciously choosing to wait until exactly the *right* time. Then, when you decide the time is right, *release* the playing purposefully, with conviction. The release can be either loud or soft, active or inactive, but it should always be definite and controlled. This approach helps to develop concentration and infuse your playing with spirit and character.

Think about *surprising* the band and audience with where and when you make your entrances. This will draw attention to your solo. Your improvising will sound unpredictable - or less predictable. The band and audience will pay better attention to you because they'll realize that they don't know when (or what) you're going to play next. This will set the stage effectively for greater musical interaction and communication between all the players involved, with you as the leader.

During each rest period, listen for the "echo" of the previous idea in your mind's ear. Hearing it will enable you to decide whether to develop the idea or go on to something new, letting you control the direction of the solo.

Initially, you might think that you are resting too much, or that resting a lot is inappropriate, extreme, and even unmusical. It doesn't seem like you are really improvising unless you're playing all the time. As soon as you stop playing you're afraid of getting lost, etc., etc. These are normal reactions if you are used to playing more or less constantly, without using your ears much, but it's safe to ignore them. Get into resting the way you've been into playing. Try to become equally comfortable with playing and resting. Treat it like an experiment and see what happens.

Resting will expose weaknesses in your playing (as well as strengths) which is good because you need to be aware of them before you can correct them. Resting will also enable you to correct them! There will be times when you will practice more continuous playing, but for now, concentrate on "catching up" your experience of using rest consciously and creatively.

Not all great players emphasize rest in their solos. Perhaps this is because pacing is optional (or at least not as necessary) for super-evolved players who are are already capable of doing it intuitively. So, before you decide to imitate this aspect of someone's playing, remember that he or she didn't start out at their current level of ability. Undoubtedly, it took years of practice and experience to develop.

Pacing - Excercise #2: "Play/Rest Combinations"

Improvise at a medium tempo (♩ = 100 → 138+) using one of the following Play/Rest combinations to control the lengths of playing and resting *throughout the solo*. Continue this for several minutes at a time. Select one of the harmonic settings and modes of accompaniment previously discussed:

Harmonic Settings

1. one chord only
2. a familiar chord pattern
3. a familiar tune progression (using an appropriate single pitch and rhythm first, then normal melody)
4. no chords

Modes of Accompaniment

1. comping tape/play-along record
2. metronome only
3. rhythm section (or another player)
4. no accompaniment

Play/Rest Combinations

I. Even-bar phrasing (easy)

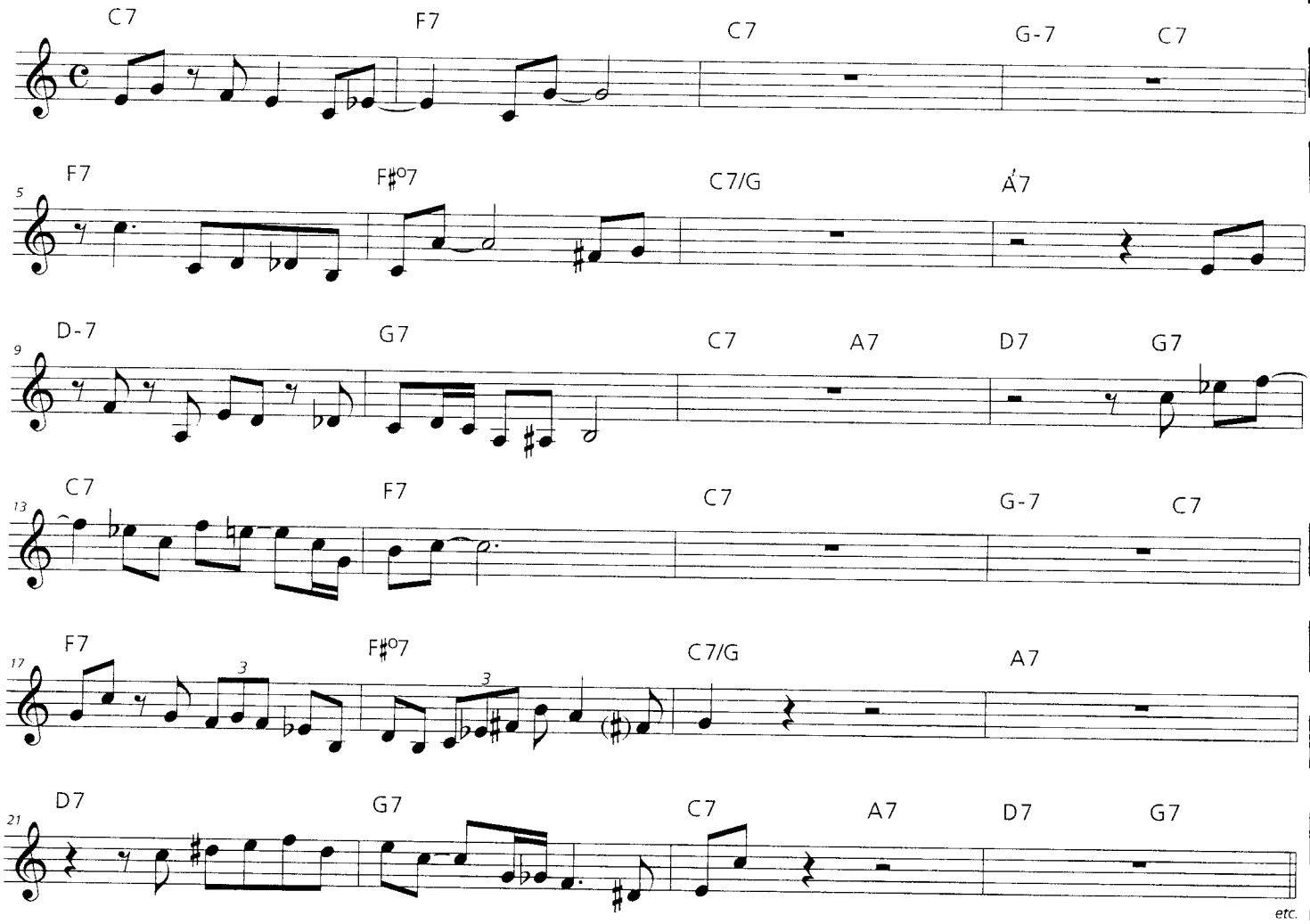
Play (bars)		Rest (bars)		Total (bars)
1	→	1	→	2
2		2		4
3		1		4
1		3		4
4		2		6
2		4		6
2		6		8

(etc.)

[Note: Play 2 bars/rest 2 bars, for example, means to play as closely as possible to 2 measures duration, then rest as closely as possible to 2 measures duration, throughout the solo.]

Example I:2R

Play 2 bars / Rest 2 bars:



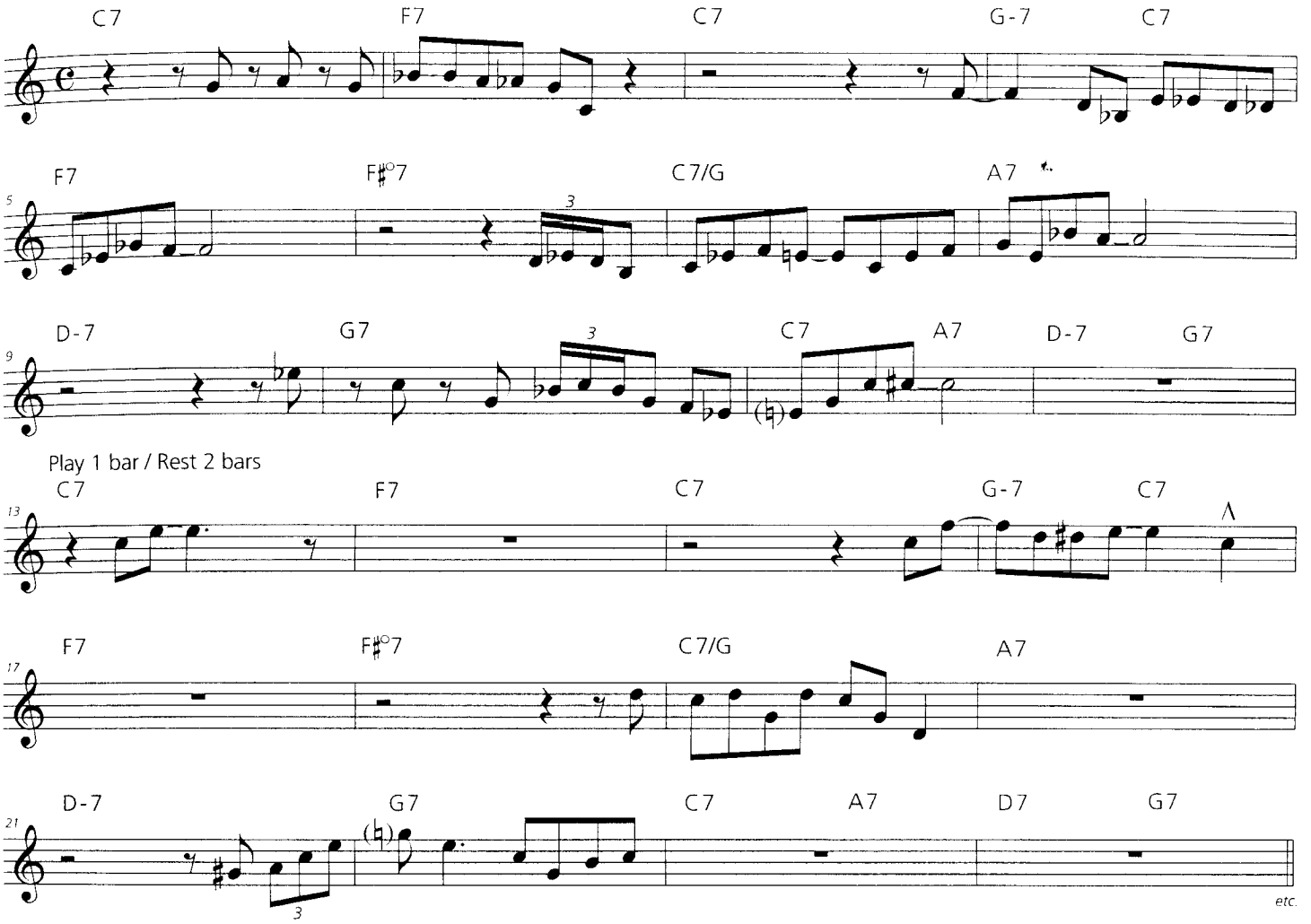
II. Odd-bar phrasing (more difficult)

Play (bars)		Rest (bars)		Total (bars)
1	→	2	→	3
2		1		3
3		2		5
2		3		5
4		1		5
1		4		5

(etc.)

Example I:3R

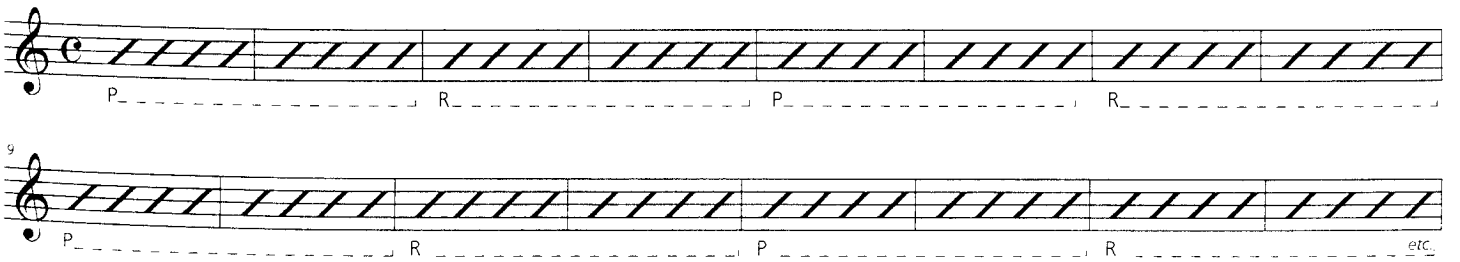
Play 2 bars / Rest 1 bar



At first it will be easier to apply the play/rest combinations while reading the music, in order to watch the chords and bars go by. When the chords have been memorized, or when you're soloing by ear, apply the play/rest combinations while reading only the bar lines, without seeing the chords.

Example I:4

Play 2 bars / Rest 2 bars



And finally, apply the play/rest combinations without watching the music at all, i.e. completely by ear or by feel.

Variations on Play/Rest Exercise #2

1. Use one play/rest combination only for an entire solo. (Begin and end phrases on different beats of the playing periods to avoid extreme symmetry in the phrasing.)
2. Change to a different play/rest combination each chorus, or every 16 to 32 bars or so.
3. Begin the play/rest combination in the 2nd bar of the progression, rather than the 1st bar.
4. Reverse the combination: Use rest/play instead of play/rest in order to solo on the chords which occurred during the rest period of play/rest.
5. Gradually apply play/rest combinations to more demanding situations, e.g. faster tempos, less familiar keys and time signatures, with and *without* accompaniment, etc.
6. 1st chorus uses space, 2nd chorus uses *no* space, 3rd chorus uses space, 4th chorus uses *no* space, etc. Reverse.
7. 1st half chorus uses space, 2nd half chorus uses *no* space, continue throughout solo. Reverse.
8. A sections of song use space, B sections use *no* space, with songs using ABA or AABA form, etc. Reverse.

[Note: The play/rest approach is an extremely effective way to practice improvising at fast tempos, which can often cause you to play continuously and lose control of the solo.]

It's a good idea to spend some time every day practicing the "general idea" of a topic , where you focus attention on the topic in a non-specific way, as well as using exercises designed to be moderately to extremely restrictive. Offset these periods of "working" with several minutes a day of concentrating only on the spirit and mood of the soloing (the *fun* of it). This will produce a well-balanced practice routine with different challenges that will keep the experience interesting.

Example: Daily Practice Schedule - Pacing (Play/Rest)

Apply at various tempos, in different harmonic settings, with and without accompaniment.

1. 20 (10) minutes on the general idea of pacing.
2. 60 (30) minutes on individual play/rest combinations.
3. 20 (10) minutes on the general idea of pacing.
4. 20 (10) minutes on the spirit and mood of music (fun).

Use the un-parenthesized time limits for a 2-hour daily practice schedule, and the parenthesized time limits for a 1-hour daily practice schedule.

Record your solos daily for critique, comparison and transcription.

IMPORTANT:

Since playing is improved by playing a lot, and resting is improved by resting a lot, it is advisable to practice *both* ways. Therefore, balance the time spent practicing resting (pacing) with time spent on more continuous playing (less pacing), *especially if you are a beginning or intermediate level player.*

Song Melody

Memorization Procedure

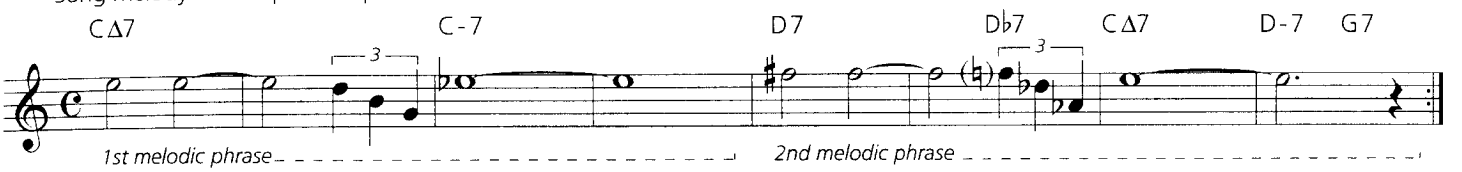
Once a song's melody has been learned (memorized) through repeated playing, it functions in the mind's ear much like a musical compass, guiding the improvisor through the form and chord progression (harmony) of the song. This is an important advantage to have *before* trying to solo on a tune since it greatly reduces the chances of losing your place while improvising. And if you do get lost, finding your place in the song's form will be much easier if you can hear the song's melody while listening to the harmony (which is often outlined or implied by the melody).

The following procedure emphasizes visual as well as aural practice and can be used to memorize song melodies:

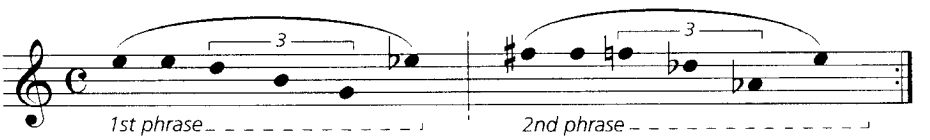
1. Rewrite each phrase of the song's melody using closed notes without stems, i.e. simply notate the actual sequence of pitch levels in the melody without assigning rhythmic values. [Note: Choose a song with a simple melody for now. Save busy active melodies for later.]

Example I:5R

Song melody: actual pitch sequence with note values.



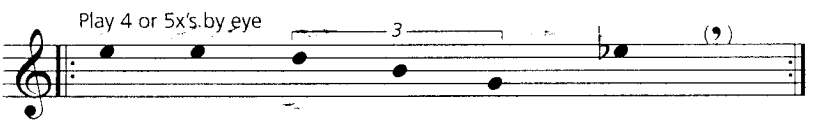
Song melody: actual pitch sequence *without* note values.



[Note: Adjusting (reducing) the rhythmic values allows the pitch sequence only of the melody to be practiced and learned more quickly.]

2. While *reading* the rhythmically adjusted version of the melody, i.e. playing it by eye, play the first melodic phrase (or just a portion of it if it is lengthy) out of tempo (rubato), four or five consecutive times.

Example I:6R



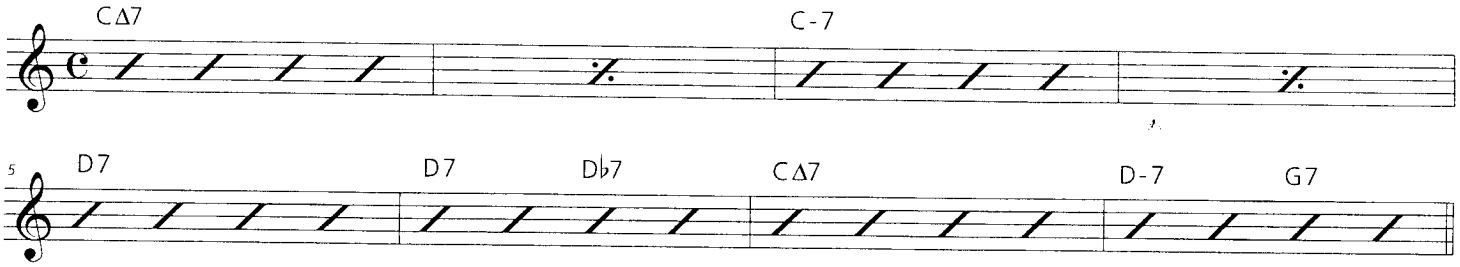
3. Play the same melodic phrase four or five more times, rubato *without reading the music,* i.e. playing it by ear and memory, glancing at the music only when necessary.
4. (Optional) Repeat steps #2 and 3, i.e. play the first melodic phrase five times by *eye* (reading), then five more times by *ear* (memory).
5. Apply steps 2, 3 and 4 to the second melodic phrase of the song.
6. Apply steps 2, 3 and 4 to the first and second melodic phrases *combined.*
7. Continue this procedure until each melodic phrase of the song has been played separately and in conjunction with all previous phrases, four or five times by *eye* (reading) and four or five times by *ear* (memory).

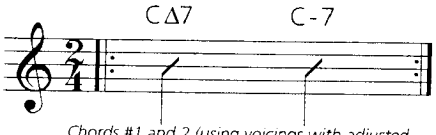
The entire process can require beween 30 and 60 minutes to complete, depending on the length of the song and the amount of notes used. However, it is an effective way to learn a song in a relatively short period of time. [Note to drummers: Melodic phrases containing notes of long duration (e.g. half notes, whole notes etc.) are best executed using *concerted* drum and cymbal attacks, the cymbal sound providing the sustained quality of a long note and the drum sound providing extra rhythmic definition. Otherwise, *concerted* drum attacks (only) can be used. Either way, drummers should always sing the song melody using syllables while playing it.]

Piano, guitar and vibes players can use the same procedure to learn the chord progression of a song by comping a voicing for each chord.

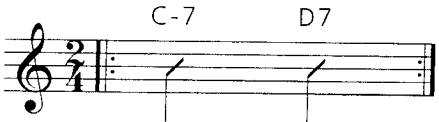
Example I:7

Chord progression of the song: actual harmonic rhythm.

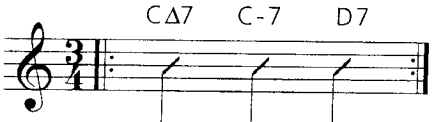




Chords #1 and 2 (using voicings with adjusted harmonic rhythm). Play 5x's by eye, 5x's by ear.

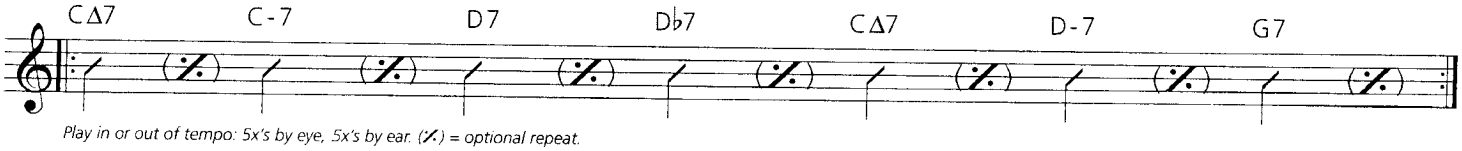


Chords #2 and 3: 5x's by eye, 5x's by ear.



Chords #1, 2 and 3: 5x's by eye, 5x's by ear.

Complete chord progression of the song: adjusted harmonic rhythm.

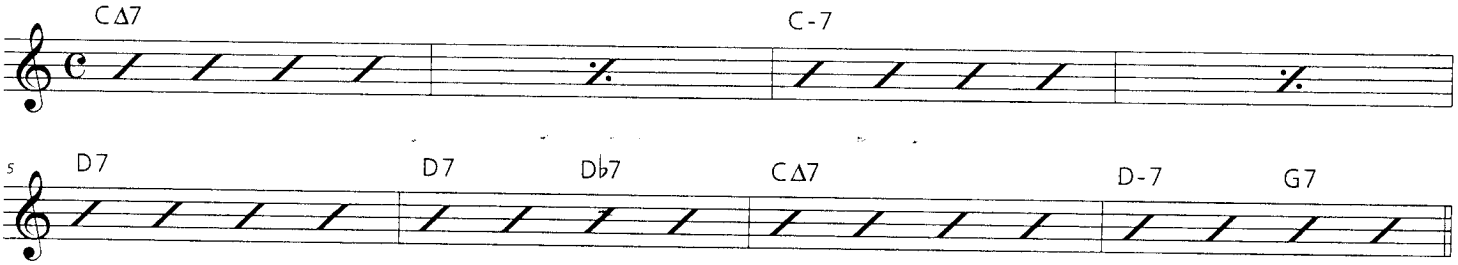


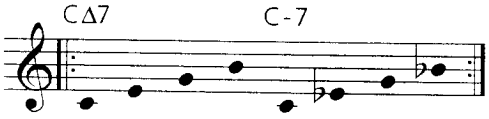
Play in or out of tempo: 5x's by eye, 5x's by ear. (%) = optional repeat.

Horn players and bass players can use this procedure to learn the chord progression of a song by arpeggiating each chord in the progression using the arpeggio pattern: root, 3rd, 5th, 7th.

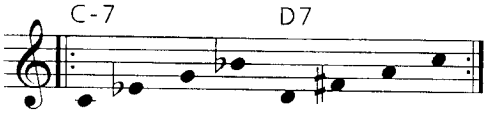
Example I:8

Chord progression of the song: actual harmonic rhythm.

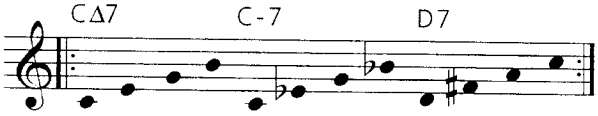




Chords #1 and 2 (using arpeggios with adjusted harmonic rhythm). Play 5x's by eye, 5x's by ear.

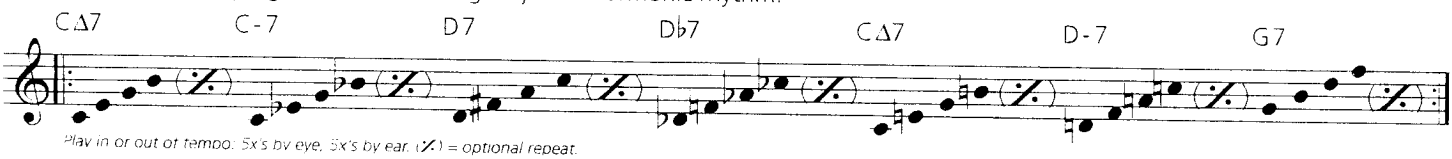


Chords #2 and 3: 5x's by eye, 5x's by ear.



Chords #1, 2 and 3: 5x's by eye, 5x's by ear.

Complete chord progression of the song: adjusted harmonic rhythm.



Play in or out of tempo: 5x's by eye, 5x's by ear. (%) = optional repeat.

Incorporating Song Melody Into Solo

To help create continuity in an improvised solo, a phrase of the song's melody is sometimes quoted. (This is especially common at the end of the solo but may happen anywhere.) Parts of the song's melody (quote) can also be used as a "send-off"- a standard musical idea used to begin an otherwise improvised phrase.

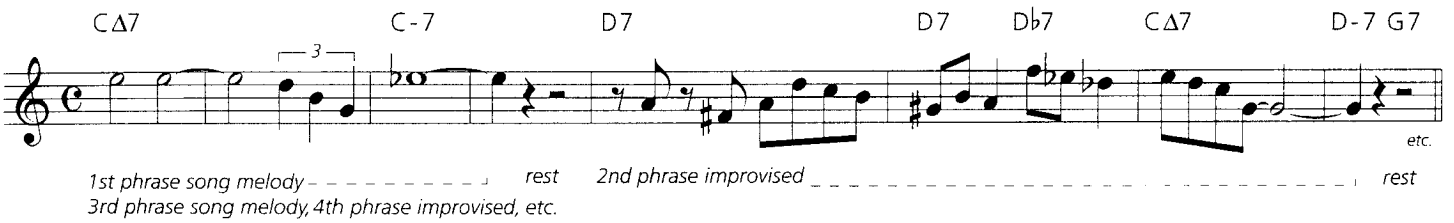
The following exercises are ways to practice incorporating a song's melody into the solo. For the harmonic setting, use the chord progression from a song whose melody and harmony you know very well, e.g. by memory. (Otherwise, you should *read* the music while practicing the exercises.) Select a manageable tempo, well within your reach. At first, use a comping tape or play-along record for accompaniment, then try a metronome only. As always, apply the play/rest approach to maintain control of the solo. Song melodies written in *4-bar* phrases tend to be easier to work with.

Song Melody - Exercise #1: "Trading Phrases"

Form of exercise:

1. Play a phrase (or a significant part of a phrase) of the song's melody (1-2 bars or so).
2. Rest.
3. Improvise the next phrase (1-4 bars or so). (See note on phrasing at bottom of page 27.)
4. Rest.
5. Repeat steps 1, 2, 3 and 4 throughout the solo.

Example I:9R



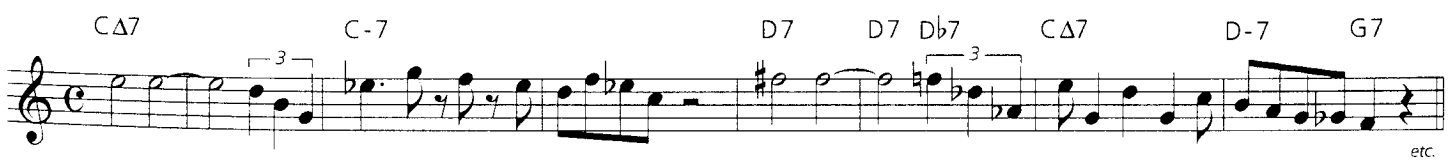
Then reverse the process, i.e., improvise the first phrase, rest, play a portion of the song's melody for the next phrase, rest. Repeat this process throughout the solo.

Song Melody - Exercise #2: "Melody Used As Send-Off"

Form of exercise:

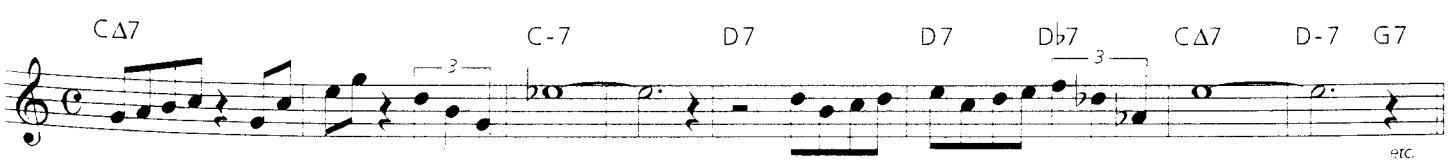
1. Begin *each* phrase of the solo with a portion of the song's melody (1-2 bars), end it with improvising (1-2 bars). (See note on phrasing at bottom of page 27.)
2. Rest between phrases.

Example I:10R



Then reverse the process, i.e., begin each phrase of the solo with improvising, end it with a portion of the song's melody. Rest between phrases.

Example I:11R



Song Melody - Exercise #3: "Quoting The Melody"

Play a (mostly) improvised solo but quote the song's melody several times (at least 3 per chorus). Choose different melodic phrases to quote each time. Vary the lengths of the quotes as well. Play 2 or more choruses at a time.

Example: Daily Practice Schedule - Song Melody

1. 30-60 minutes on memorizing a song melody and chord progression.
2. 10 minutes on Exercise #1, trading phrases.
3. 10 minutes on Exercise #1, reverse process.
4. 10 minutes on Exercise #2, melody used as send-off.
5. 10 minutes on Exercise #2, reverse process.
6. 10 minutes on Exercise #3, quoting the melody.
7. 10 minutes on the spirit and mood of the music.

Phrase Lengths - Controlling the lengths of phrases in an improvised solo.

A phrase is defined [here] as a period of continuous, but not necessarily constant, melodic/rhythmic activity, which can vary in length from one beat to several measures depending on tempo. Phrase lengths should vary in a solo in order to create interest and avoid predictability or too much symmetry. Playing [some] phrases of equal length can have a positive effect, however, especially when the musical content involves a development or sequence of a previous idea, i.e. borrowed or repeated elements, such as rhythm, melody notes or melodic curve. But playing numerous consecutive phrases of equal length in a solo can sound unimaginative, limited and predictable. As with pacing (and all other topics), balance is the key to being musical.

We begin by dividing phrase lengths into 3 basic categories: short, medium and long. Then, considering the tempo, an approximate duration for each category is assigned as follows:

1. Phrase lengths for slow tempos (♩ = 60 → 120) in 4/4 time:

Short	Medium	Long
1 - 4 beats (within 1 measure)	5 - 12 beats (between 2 and 3 measures)	over 12 beats (over 3 measures)

2. Phrase lengths for medium tempos (♩ = 120 → 184) in 4/4 time:

Short	Medium	Long
1 - 4 beats (within 1 measure)	5 - 16 beats (between 2 and 4 measures)	over 16 beats (over 4 measures)

3. Phrase lengths for fast tempos (♩ = 184+) in 4/4 time:

Short	Medium	Long
1 - 8 beats (within 2 measures)	9 - 24 beats (between 3 and 6 measures)	over 24 beats (over 6 measures)

[Note: The beat durations assigned above are my recommendations. Whichever durations you use, consider them to be approximate or "ball-park" figures, i.e. when practicing, try to play within a few beats (+ or -) of the durations you set.]

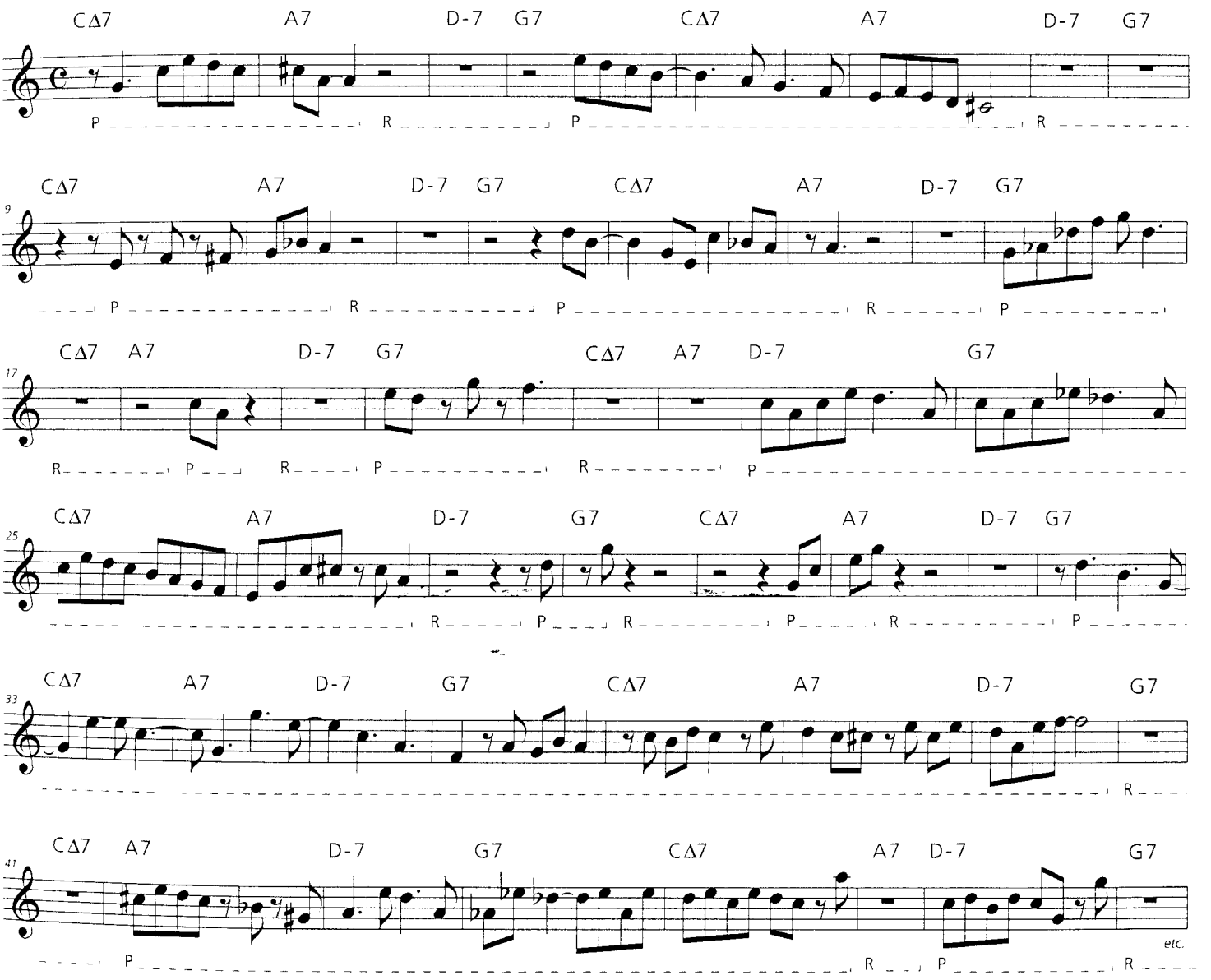
Phrase Lengths - Exercise #1: "The General Idea"

After selecting a harmonic setting and mode of accompaniment, use the play/rest approach and improvise *in tempo* while concentrating on varying the phrase lengths. Continue this for several minutes at a time. Record your solos for critique.

The objective is to become familiar with playing consecutive phrases of different lengths (short, medium, long) separated by rest. Use the rest periods to remember the object of the exercise and control the playing accordingly.

Experiment with extremes, playing *very* short phrases (1-2 beats) and very long ones (7-8 bars). Several short phrases are necessary to balance the effect of one medium or long phrase, so for now, play more short phrases and fewer medium and long ones. Also experiment with beginning and ending the phrases in less conventional places in the chord progression to create interest and variety.

Example I:12R



IMPORTANT:

Although the melodic activity of a phrase need not be constant (e.g. consecutive 8th notes), keep it more or less continuous, *especially with medium and long phrases,* since 1 1/2 beats or so of rest or inactivity (depending on the tempo) is all that is necessary to suggest that a single phrase has been broken into separate ones. Remember to rest sufficiently after each phrase (4 beats minimum and preferably longer) in order to clearly define its length.

Phrase Lengths - Exercise #2: "Individual Phrase Lengths" and "Combining Phrase Lengths"

Select a harmonic setting and mode of accompaniment.

Using the play/rest approach, improvise at a medium tempo while controlling the phrase lengths throughout the solo as follows:

1. Short phrases only (1-4 beats).
2. Medium length phrases only (2-4 measures each).
3. Long phrases only (5-8 measures each).
4. Rotate phrase lengths throughout the solo:
   a) 1 short, 1 medium length (i.e. play one short phrase, rest, play 1 medium phrase, rest. Repeat.)
   b) 1 short, 1 long
   c) 2 short, 1 long
   d) 1 medium, 1 long, etc.
5. 1st chorus (or 1/2 chorus) uses short phrases, 2nd chorus (or 2nd 1/2 chorus) uses long phrases, etc. Reverse.
6. A sections use short phrases, B sections use long phrases, etc. Reverse.

Continue each exercise for several minutes at a time.

Rest sufficiently between phrases.

Use the rest to remember the object of the exercise and control the playing accordingly.

Change the tempo, harmonic setting and mode of accompaniment as you like. Record your solos for critique and transcription.

Example: Daily Practice Schedule - Phrase Lengths

1. 20 (10) minutes on the general idea of varying the phrase lengths.
2. 60 (30) minutes on individual phrase lengths and specific combinations.
3. 20 (10) minutes on the general idea of varying the phrase lengths.
4. 20 (10) minutes on the spirit and mood of the music (fun).

Use the un-parenthesized time limits for a 2-hour daily practice schedule, and the parenthesized time limits for a 1-hour daily practice schedule, or set your own time limits for each area.

Rotating Practice Schedules

As you acquire more and more topics and materials to practice, it becomes increasingly important to *choose* exactly what to concentrate on each day, how much time to devote to each exercise, how many days to continue the routine, etc. Rotating two (or more) practice schedules can be helpful in this case, where you combine certain topics and exercises on one day, and different topics and exercises on the next day. Then return to the first routine on the third day, the second routine on the fourth day, and so on, until you decide it's time to practice new topics.

Example: Daily Practice Schedule - Combining Pacing and Phrase Lengths

1st, 3rd, 5th, etc. day schedule:

Use a tune progression in E major, with comping tape and with metronome only.

1. 20 (10) minutes on the general idea of pacing (play/rest).
2. 40 (20) minutes on specific play/rest combinations.
3. 20 (10) minutes on the general idea of phrase lengths (short, medium, long).
4. 40 (20) minutes on indivdual phrase lengths and specific combinations.
5. 20 (10) minutes on the spirit and mood of the music.

2nd, 4th, 6th, etc. day schedule:

Use chord patterns: (a) IΔ7, VI-7, II-7, V7 and (b) II-7, V7, IΔ7, VI-7 in E major and C♯minor, with comping tape and without accompaniment.

1. Same as #1 above.
2. Same as #2 above, using different play/rest combinations.
3. Same as #3 above.
4. Same as #4 above, using different phrase lengths and combinations.
5. Same as #5 above.

Other Possibilities (Rotating Practice Schedules)

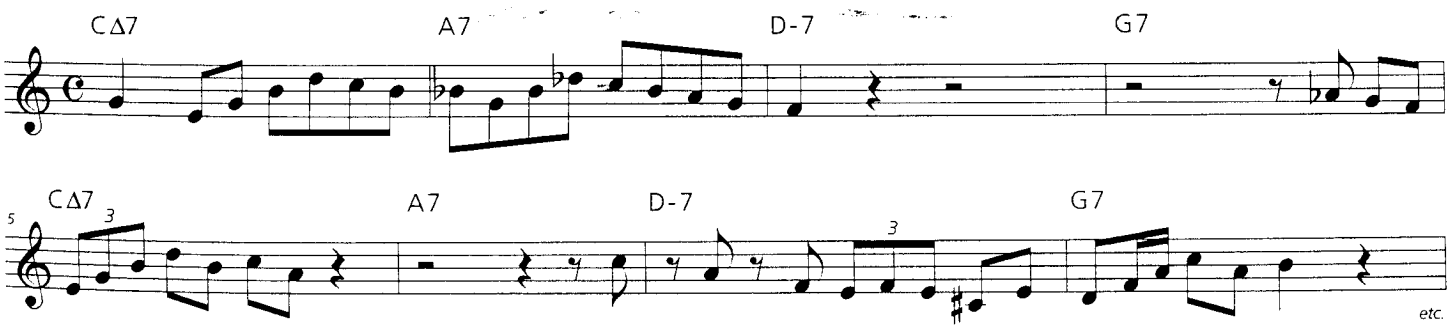
1. All practice time for the first day is devoted to one topic only (e.g. pacing), using various tempos, harmonic settings and modes of accompaniment. All practice time for the second day is devoted to a different topic (e.g. phrase lengths), using various tempos, harmonic settings and modes of accompaniment. Rotate the practice schedules on a daily basis for 2 or 3 weeks, or until you decide it's time to practice new topics.
2. All practice time for the first week is devoted to one topic only. All practice time for the second week is devoted to a different topic. Rotate the practice schedules on a weekly basis, or simply continue to practice new topics, each for one week or more at a time.
3. All practice time for the first day is devoted to technique or technical studies. All practice time for the second day is devoted to improvisation. Rotate the schedules on a daily basis.

Rhythmic Density (Activity) - Controlling the quantity of notes played in a phrase.

Rhythmic density refers to the degree of activity (melodic and/or rhythmic) found in the music. Like pacing and phrase lengths, rhythmic density is an extremely noticeable aspect of improvising that is important to balance and use to create variety and interest in a solo.

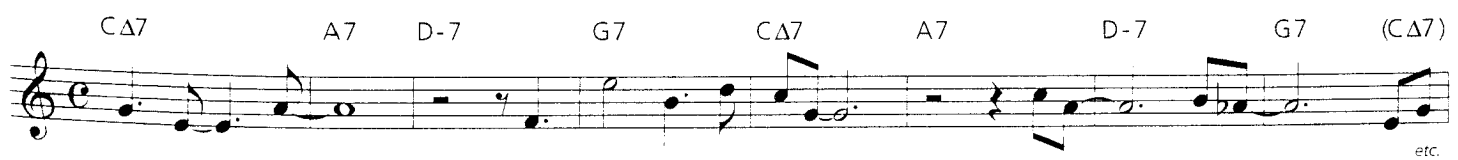
High rhythmic density in a phrase means the activity sounds busy or complex. This is achieved by playing many notes, usually of short rhythmic value, such as 8th notes, triplets and 16th notes, but other longer note values may occasionally be included as well. It is referred to as a "dense" (or active) phrase and may be any length – short, medium or long.

Example I:13R



Low and medium rhythmic density in a phrase means the activity sounds relatively un-busy and simple. This is achieved by playing fewer notes of longer durations, such as whole notes, half notes, dotted quarter notes, etc. Occasional notes of shorter value can be included as well. It is referred to as a "sparse" (or inactive) phrase and usually is at least 4 beats in length or longer.

Example I:14R

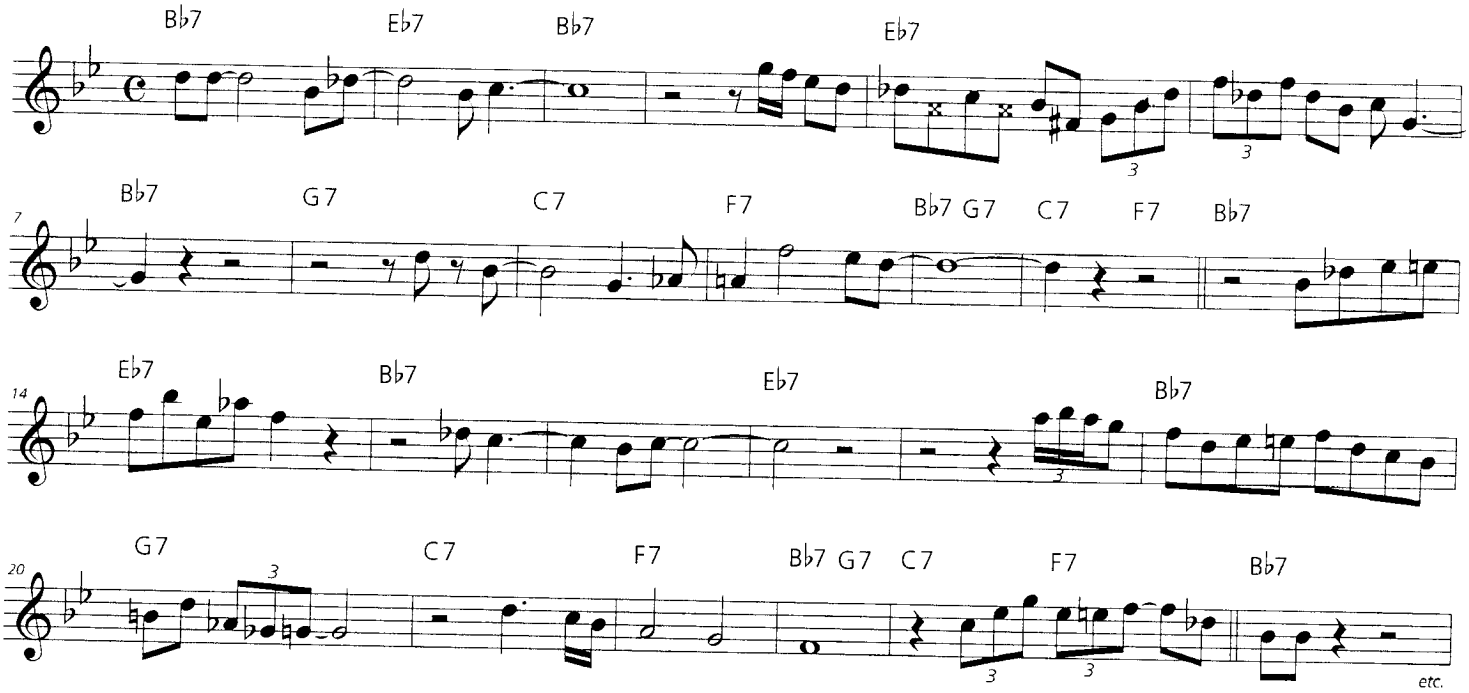


Both dense and sparse phrases can incorporate rhythmic syncopation and anticipations to create the necessary feeling of forward motion in the melody line. The rhythms or ideas played in dense and sparce phrases should (for now) clearly and accurately define the tempo.

Rhythmic Density - Exercise #1: "The General Idea"

Select a harmonic setting and mode of accompaniment. Improvise at a medium to medium-fast tempo using the play/rest approach. Focus on the genearal idea of varying the activity between dense and sparse throughout the solo.

Expamle I:15R



The objective is to become familiar with controlling and balancing the quantity of notes played in each phrase to create variety and interest in the solo. Rest sufficiently between ideas. Use the rest to remember the object of the exercise and "hear" the effect of the previous idea.

Continue this for several minutes at a time. Change the tempo, harmonic setting and mode of accompaniment as you like.

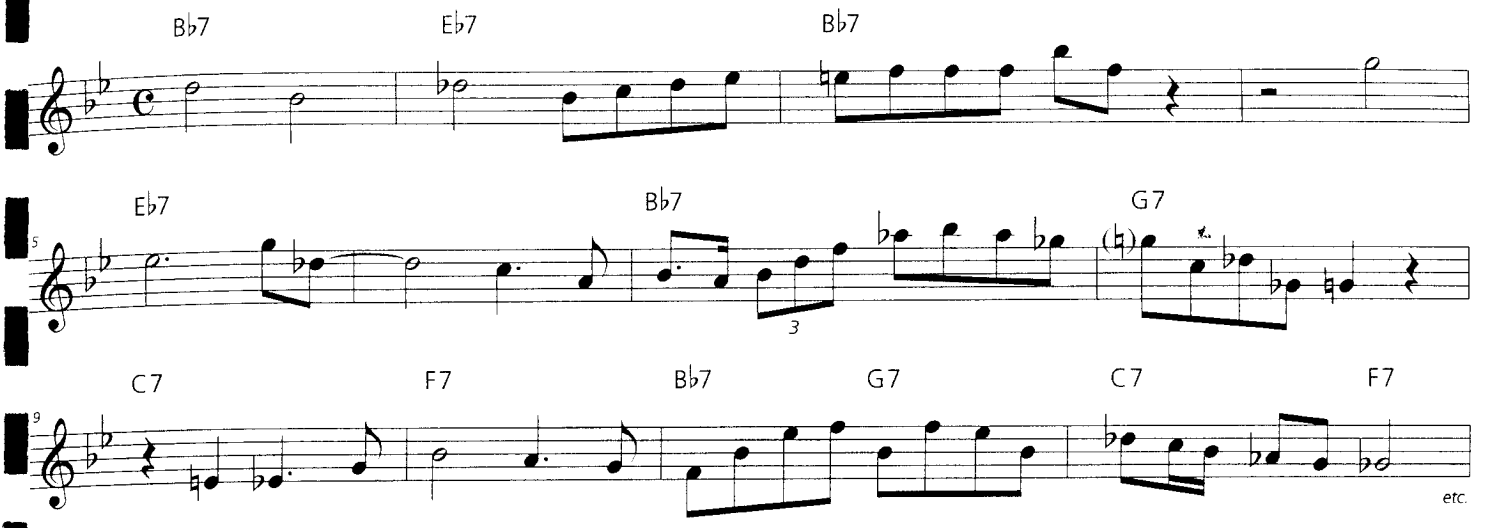
Record your solos for critique and transcription.

Rhythmic Density - Exercise #2: "Individual Activity Levels" and "Combining Activity Levels"

Select a harmonic setting and mode of accompaniment. Using the play/rest approach, improvise in tempo, controlling the playing throughout the solo as follows:

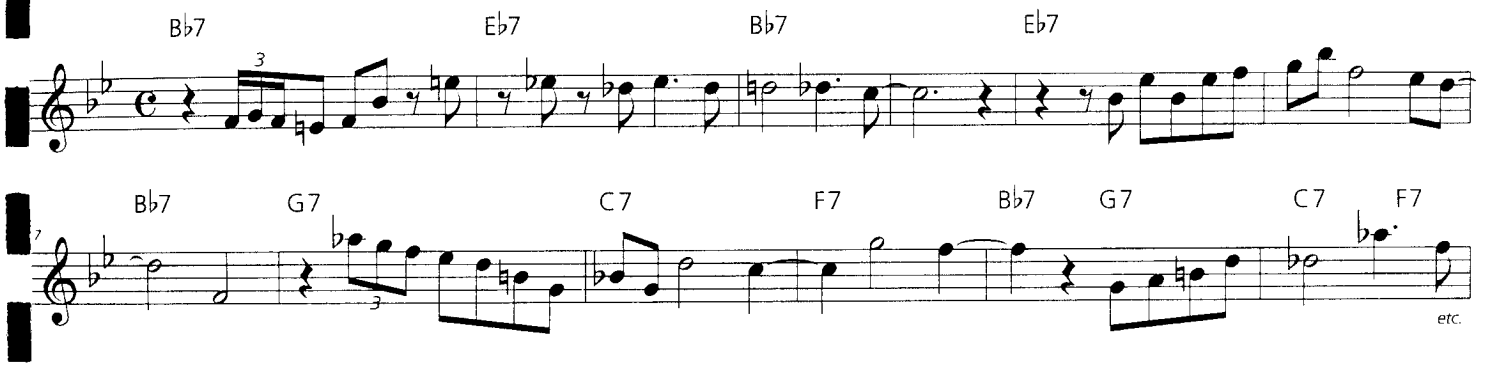
1. Use notes of long duration only, e.g. half notes, vary phrase lengths.
2. Sparse activity only (use notes of various durations), vary phrase lengths.
3. Use notes of short duration only, e.g. 8th or 16th notes, vary phrase lengths.
4. Dense activity only (use notes of various durations), vary phrase lengths.
5. Rotate phrases throughout the solo: 1 sparse, 1 dense, vary phrase lengths.
6. Begin each phrase sparse, end dense (use medium or long phrases).

Example I:16R



7. Begin each phrase dense, end sparse.

Example I:17R



8. Begin each phrase sparse, to dense, end sparse.
9. Begin each phrase dense, to sparse, end dense.
10. Combine sparse and dense phrases with various phrase lengths, e.g. 2 short dense phrases, 1 long sparse phrase. Repeat throughout the solo.
11. 1st chorus (or 1/2 chorus) uses sparce phrases, 2nd chorus (or 1/2 chorus) uses dense phrases, etc. Reverse.
12. A sections of song use sparce phrases, B sections use dense phrases, etc. Reverse.

Example: Daily Practice Schedule - Rhythmic Density

1. 20 (10) minutes on the general idea of varying the activity.
2. 60 (30) minutes on individual activity levels and specific combinations.
3. 20 (10) minutes on the general idea of varying the activity.
4. 20 (10) minutes on the spirit and mood of the music.

Time-Feel

Improvising with strong, musical time-feel means playing with a relaxed, unanxious rhythmic feel wh stating or defining a steady, consistent tempo, *with or without accompaniment.* Even at the most intense or subdued moments, the rhythmic time-feel should be relaxed, steady and flowing.

Rhythmic time-feel is the most basic, fundamental element communicated by the soloist, and appreciate (or criticized) by an audience. The greatest technique, creativity, melodic accuracy, lyricism, sound, style, etc. matters very little if the music doesn't feel good rhythmically, whereas less evolved technique, ideas, melod choices, sound, etc. can actually sound okay when executed with rhythmic accuracy (good time-feel) an conviction.

Ability in other areas may vary considerably among accomplished players, but all good improvisors ar capable of "hooking-up" solidly with the time, of committing to the tempo, of rhythmically defining the time with their playing, with or without accompaniment. If and when they play "floating" time, or improvising without stating the time definitively, they do it on purpose, as a special effect.

Developing a strong sense of time is important also because it enables other aspects of improvising to be improved more easily. In other words, when you experience a grounded connection to the music through time, you are free to concentrate more on hearing or conceiving ideas, executing them, and shaping the solo more musically.

Think of rhythmic time-feel as the musical framework within which everything else happens. It should be a priority on the list of areas to practice and improve.

Three important characteristics of jazz or "swing" time-feel are:

1. The placement of the upbeat attack, which is delayed slightly compared to even or straight time-feel. This can be described using triplet notation:

   Even 8th notes: . Swing 8th notes: or (but written as).

   The upbeat attack occurs on (or near) the last 3rd of the beat giving the music a bouncing (or swinging) quality: etc.

2. The use of accents and dynamics (sudden extreme volume changes within a line) which infuse the music with spirit and character.

3. A sense of forward motion resulting from rhythmic anticipations, syncopation, accents and dynamics.

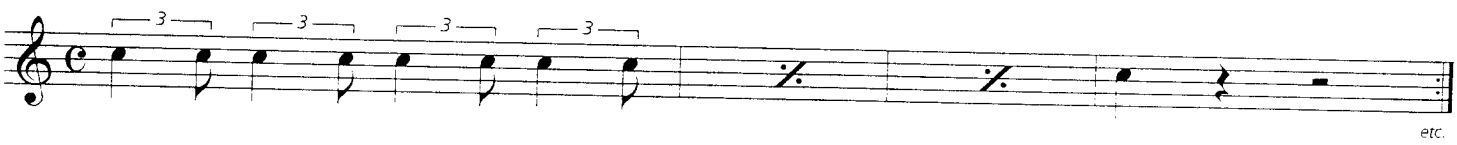
Rather than trying to develop strong time-feel while concentrating on chords, melodic ideas, melodic accuracy, etc., eliminate melody and harmony for the time being. Use a single note (pitch level) with rhythm and tempo only (See Exercise #1, below). This will enable you to devote all your attention to the areas of rhythmic time-feel and tempo accuracy alone. After your time-feel improves from such focused practicing, it will be easier to practice it with scales and chords.

Time-Feel - Exercise #1: "Swing Feel, Accents, Syncopation" *(without chords)*

1. With a single note, play repeated attacks in tempo using consecutive "swing" 8th notes only. Concentrate on: (1) the placement of the upbeat (triplet feel), (2) giving notes full value (no separation between notes); and (3) playing with equal accents on downbeat and upbeat. Use the play/rest approach, vary the phrase lengths. Continue this for several minutes at a time with the same tempo. Vary the tempo between very slow and as fast as possible. Practice with and without a metronome. (These exercises should be practiced vocally as well, i. e. by singing the notes.)

Example I:18R

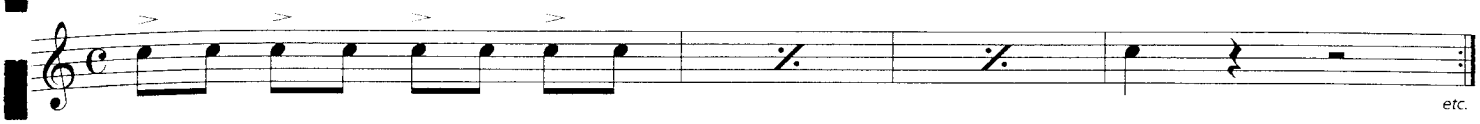
♩ = 100



[Note: As the tempo approaches extremely fast, the distinction between swing 8ths and even 8ths becomes harder to make, i.e. swing 8ths become even 8ths.]

2. Repeat #1 applying only downbeat accents to swing 8th notes.

Example I:19R

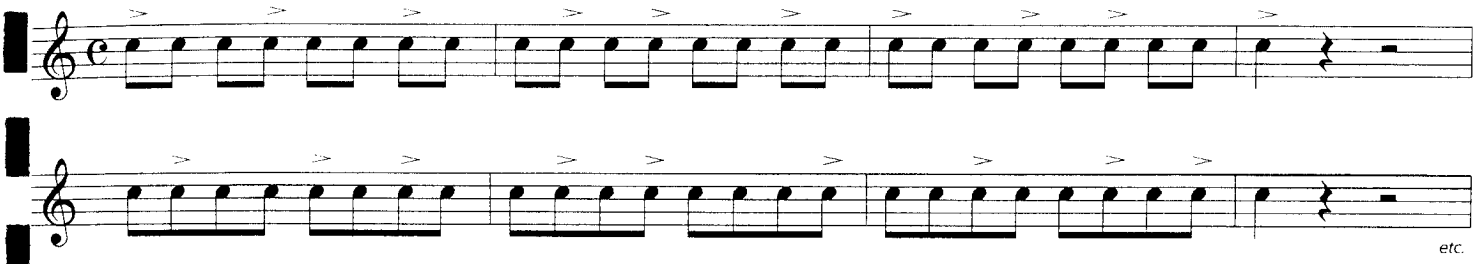


3. Repeat #1 applying only upbeat accents to swing 8th notes.

Example I:20R

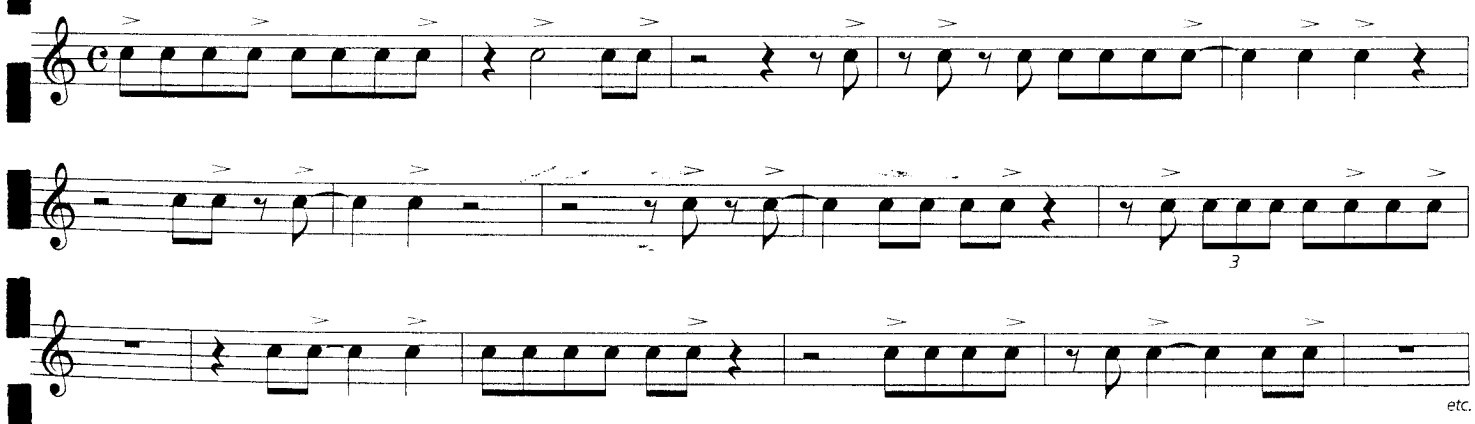
4. Repeat #1 applying a random mixture of downbeat and upbeat accents to swing 8th notes.

Example I:21R



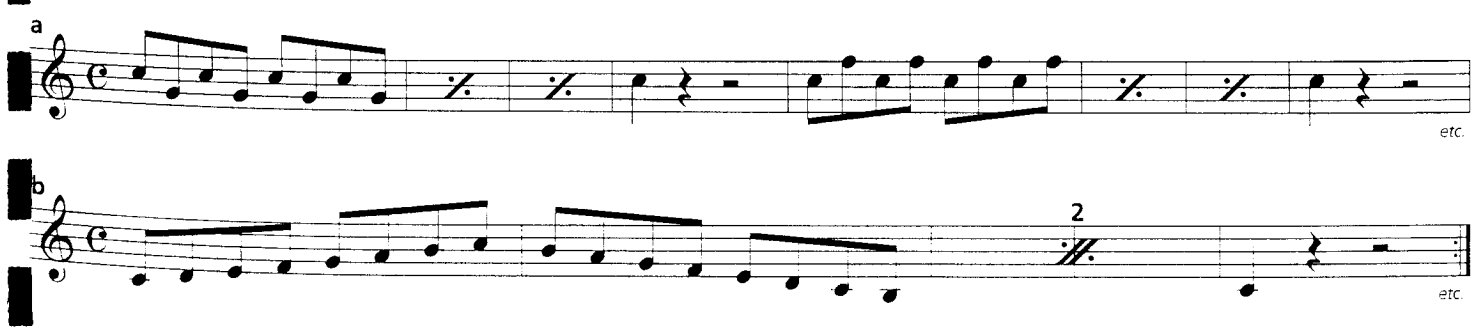
5. Repeat #1 adding syncopated rhythms to consecutive swing 8th notes. Include accents and dynamics. Think of it as playing the rhythm only of an improvised solo, i.e. without the pitches. [Note: This exercise should also be applied to a tune progression, a chord pattern and a single chord using an appropriate single pitch throughout.]

Example I:22R



6. Repeat #1-5 above using 2 different notes (intervals), chord arpeggios, and conventional 7-note scales.

Example I:23R



Time-Feel - Exercise #2: "The General Idea" (with chords)

Select a tempo, harmonic setting and mode of accompaniment. Using the play/rest approach, improvise in tempo while focusing on the general idea of time-feel throughout the solo. *The objective is to state or define the time rhythmically with your playing so that the tempo could be accurately and consistently felt without the accompaniment.* Rest sufficiently between phrases, varying the phrase lengths and rhythmic density. Continue this for several minutes at a time. Change the tempo, harmonic setting and mode of accompaniment as you like. Be sure to practice without accompaniment, also. Record your solos for critique.

Example: Daily Practice Schedule - Time-Feel

1. 20 (10) minutes on the general idea of time-feel.
2. 60 (30) minutes on swing feel, accents and syncopation.
3. 20 (10) minutes on the general idea of time-feel.
4. 20 (10) minutes on the spirit and mood of the music.

Melodic and Rhythmic Embellishment

Melodic embellishment means adding melody notes to, and/or deleting them from, a more or less basic version of a song melody. The basic rhythm of the song melody is automatically affected (changed) by a melodic embellishment, since adding melody means adding rhythm also.

Rhythmic embellishment means changing only the rhythm of the original (or basic) version of the song, leaving the melody notes the same pitchwise, only shorter, or longer, or repeated, or displaced from the original position in the measure.

Embellishment can be slight or extreme, or anywhere in beween the two, as long as the original song melody can be recognized by ear.

Prepare to practice the following exercises by learning (memorizing) the melody of a chosen song *as it is written,* i.e. without embellishment. Select a simple, uncomplicated song melody that lends itself well to melodic and rhythmic variation, e.g., "The Days of Wine and Roses", "All of You", "What Is This Thing Called Love", "All The Things You Are", etc. Medium tempo standard songs are generally the easiest to work with. The melodies of "Donna Lee", "Straight No Chaser", "Daa-Houd", or "Confirmation", for example, would not be very practical choices for melodic embellishment (in the beginning) because of the high rhythmic density (activity), the fast tempo, and the fact that these melodies already sound embellished! However, after acquiring some experience, these melodies can be embellished as well.

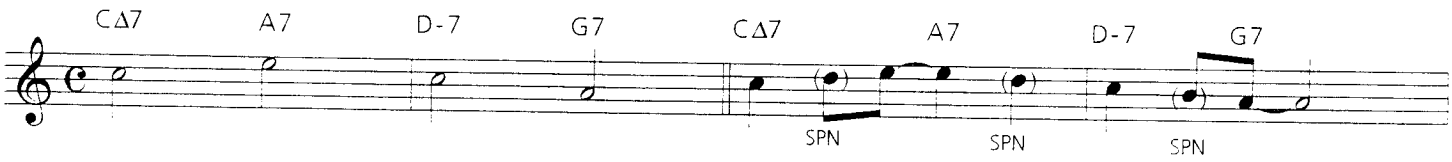
Use the following conventional melodic embellishment techniques:

Common Embellishment Techniques

[Note: When described or explained in words, some of these embellishment techniques seem more complicated that they are worth for playing purposes! However, the musical examples provided for each technique should make it relatively clear, and, in most cases, familiar to you as well. Before trying to spontaneously apply any particular embellishment technique in a playing context, though, write out several examples of your own to be sure you understand it. Play the examples provided (as well as your own) to learn the techniques by ear. Improvising various embellishments will be much easier when you know what they should sound like and after you have had some written practice.]

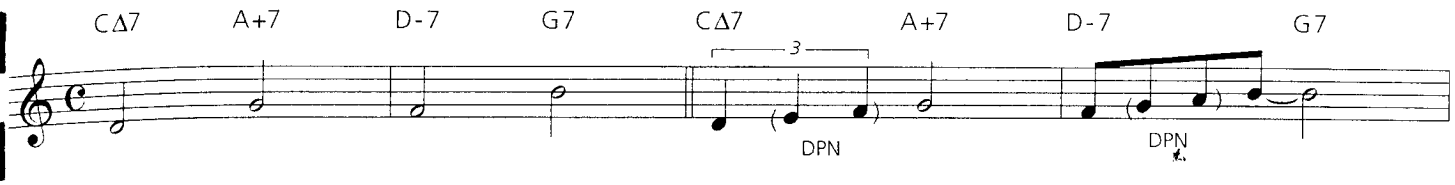
1. Single Passing Note (SPN): Connects two notes a 3rd apart by diatonic step (major or minor 2nd interval) in the direction of the target note.

Example I:24R



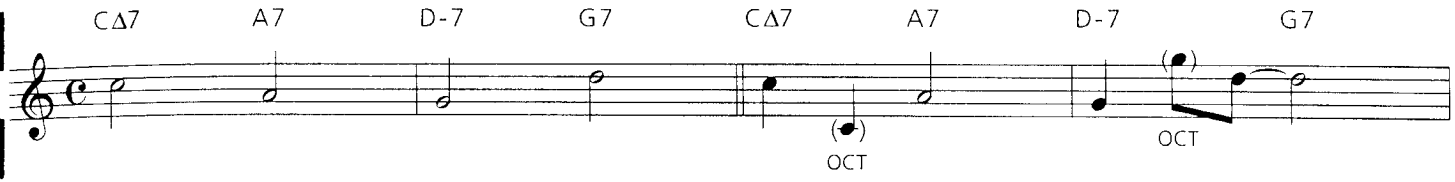
2. Double Passing Notes (DPN): Connects two notes a major 3rd, perfect 4th or augmented 4th apart with two diatonic steps in the direction of the target note.

Example I:25R



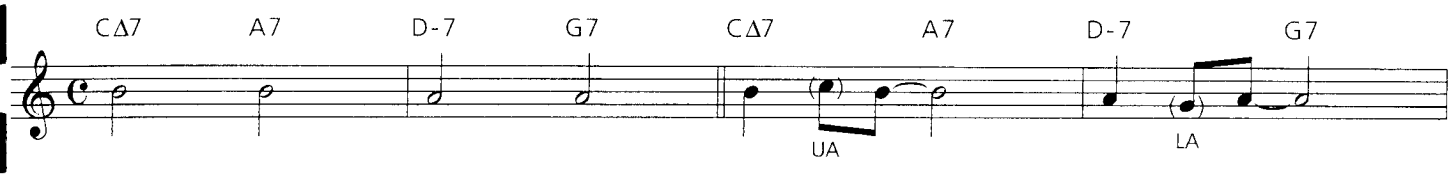
3. Octave Displacement (OCT): First note is repeated one octave higher or lower, but in the direction of the second note.

Example I:26R



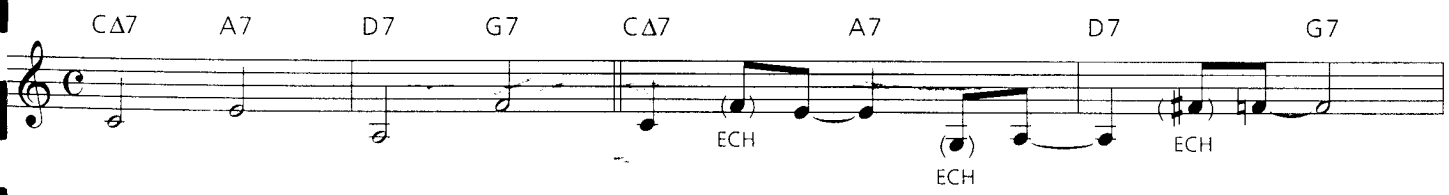
4. Upper and Lower Auxiliary (UA, LA): Connects two notes of the same pitch from above or below by diatonic step.

Example I:27R



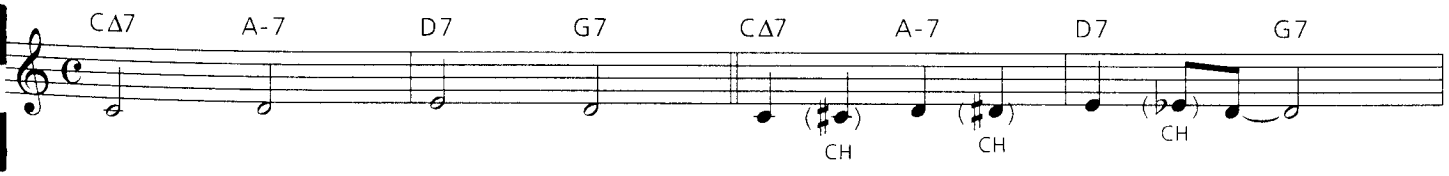
5. Échapé (ECH): Connects two notes a 2nd or more apart by leaping from the first note to a note on the opposite side of the target note, which then resolves by step to the target note. [Note: A leap is any melodic interval greater than a major 2nd, i. e. a minor 3rd or more.]

Example I:28R



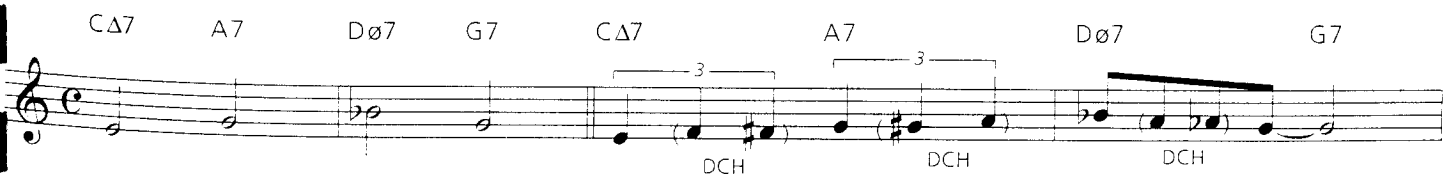
6. Chromatic Approach (CH): Connects two notes a major 2nd apart by 1/2 step (minor 2nd interval).

Example I:29R



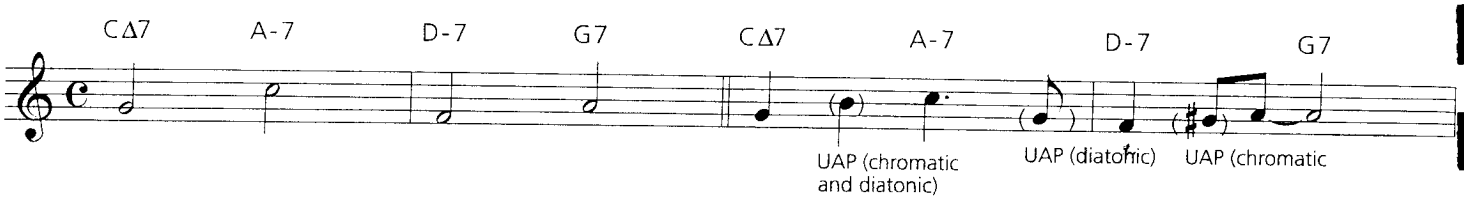
7. Double Chromatic Approach (DCH): Connects two notes a minor 3rd apart with 2 chromatic notes (1/2 steps, minor 2nd intervals).

Example I:30R



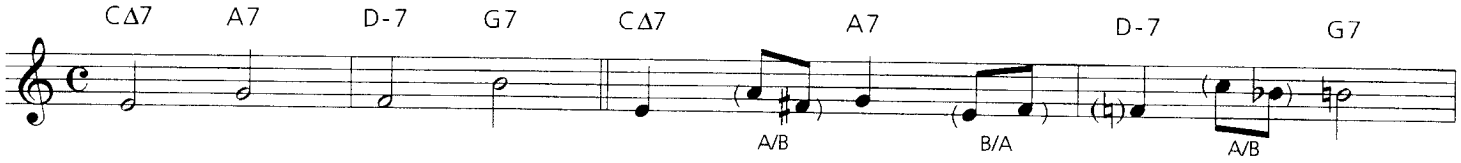
8. Unprepared Approach (UAP): Connects two notes a 3rd or more apart by leaping from the first note (in the direction of the 2nd note) to a note one step away from the 2nd note which resolves in the same direction as the leap.

Example I:31R



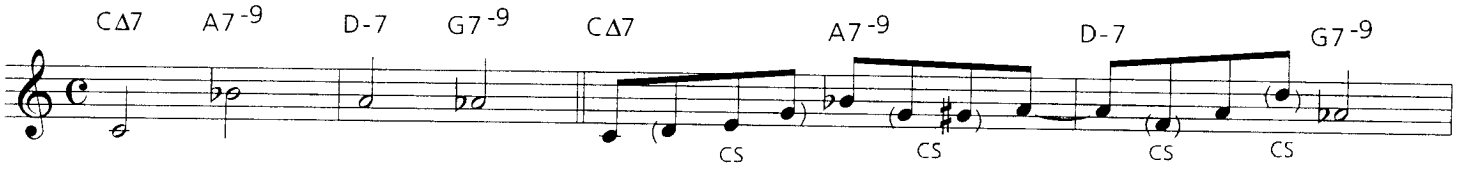
9. Above/Below or Below/Above Approach (A/B or B/A): Connects any two notes with one note from above and one not from below (or vice versa) the target note by step.

Example I:32R



10. Chord Sound (CS): Connects any two notes with a reasonable amount of chord tones, tensions and/or non-harmonic tones properly resolved (non-harmonic means non-agreeable to the chord).

Example I:33R



Practice embellishing a song melody using only one embellishment technique throughout the solo, aiming for those places in the melody where it would be applicable and appropriate. Cover the 10 techniques presented. Or, write your own melody (in phrases) to a standard song's chord progression using half and whole notes only. Shape the melody appropriately for use with a specific embellishment technique, e.g. to practice échapé incorporate leaps in the written melody; to practice auxiliaries incorporate repeated notes, etc.

Embellishment - Exercise #1: "Rhythmic Embellishment"

Without adding or deleting any melody notes, play the basic melody of the prepared song in tempo and change or vary only the rhythm of the melody by expanding originally short note values, contracting originally long note values, repeating notes, anticipating and delaying notes, displacing notes, incorporating syncopation, etc. Experiment with degrees of rhythmic embellishment: Begin with slight variations and gradually get more extreme. *Play several (5 or 6) choruses of the melody at a time,* creating different rhythmic embellishments each chorus. Practice with and without accompaniment. Record solos for critique. [Note: Drummers beware of obscuring a song melody by extreme rhythmic embellishment.]

Embellishment - Exercise #2:"Melodic Embellishment"

Play the melody of the prepared song in tempo adding "extra" notes to each melodic phrase, e.g. as pick-up notes (before the phrase), as "trail" notes (at the end of the phrase), as passing tones and approach notes (within the phrase). Delete less prominent melody notes as well. Experiment with degrees of melodic embellishment: Begin with slight, inconsequential additions and deletions and gradually get more extreme. May include rhythmic embellishment also. *Play several (5 or 6) choruses of the melody at a time,* creating different melodic embellishments each chorus. Practice with and without accompaniment. Record solos for critique.

Example: Daily Practice Schedule - Embellishment

1. 20 minutes on rhythmic embellishment.
2. 30 minutes on individual melodic embellishment techniques.

3. 20 minutes on melodic/rhythmic embellishment, in general.
4. 20 minutes on the spirit and mood of the music.

Non-Harmonic Melody Notes

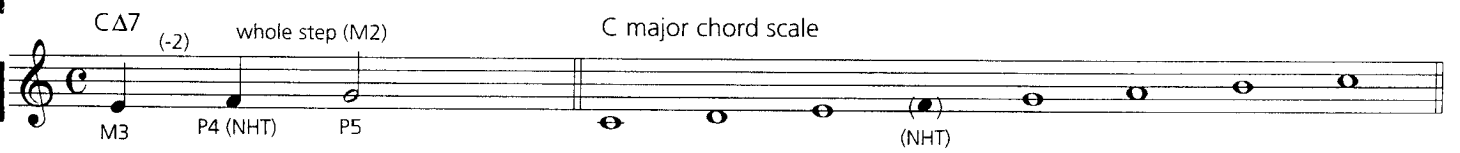
Non-harmonic tones (NHT) are those notes which are "disagreeable" or unconventional to a chord or chord scale, e.g., a major 3rd on a minor chord. They can be diatonic, but are mostly non-diatonic to the scale, and can usually be found 1/2 step (minor 2nd interval) *above* a chord tone or diatonic tension. Non-harmonic tones require resolution (in most cases) when used in the melody. (See Section V for exceptions.) The preferable resolution, because of strength and smoothness, is up or down by 1/2 step to an "agreeable" tone (e.g., the major 3rd on a minor chord should resolve up 1/2 step to the perfect 4th or down 1/2 step to the minor 3rd). Whole step resolution (up or down by a *major* 2nd interval) is possible in cases when the non-harmonic tone is diatonic to the chosen chord scale (e.g., the perfect 4th on a major chord can resolve up by whole step to the perfect 5th if the perfect 4th is diatonic to the major chord scale). Non-harmonic tones may be *prepared* by step *or* leap (a leap is any melodic interval greater than a major 2nd).

Harmonic tones (HT), then, are those notes which are "agreeable" and conventional to a chord or chord scale. They do not require resolution, and may be prepared by step or leap. Another term for harmonic tone is "chord sound", meaning the chord tones (root, 3rd, 5th and 6th or 7th) and all *allowable* tensions (9ths, 11ths, and 13ths) of a particular chord scale. (See Chord Scale Summary on pages 54 and 55.)

Resolving non-harmonic notes by step in a melody can occur in one of 2 ways: Direct (immediate) resolution or indirect (eventual) resolution.

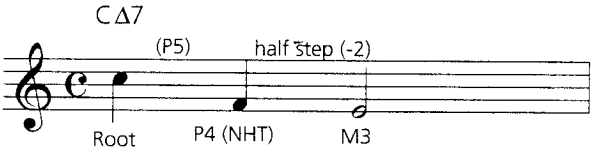
With direct resolution, the non-harmonic tone moves immediately up or down by step to a harmonic tone. The non-harmonic tone may be prepared by step or by a melodic leap.

Example I:34



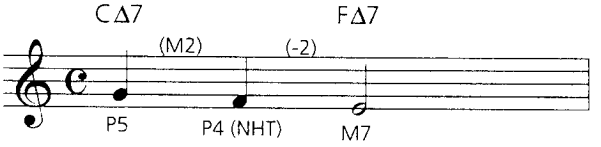
In the above example, whole step resolution of the non-harmonic tone is okay because it is diatonic to the C major chord scale.

Example I:35



In the above example, the non-harmonic tone is prepared by a melodic leap of a perfect 5th, and resolved by step.

Example I:36

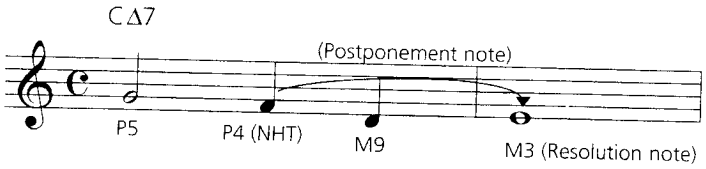


In the above example, the non-harmonic tone is prepared and resolved by step.

Direct resolution may occur within a chord's duration (as in Examples I:34 and I:35 above), or as the chord changes (as in Example I:36, above).

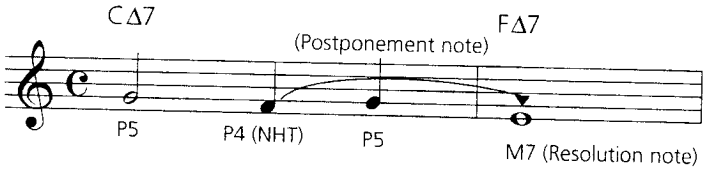
With indirect resolution, the non-harmonic tone first moves by leap or step to a "postponement" note (usually a harmonic tone located on the opposite side of the resolution note), and then to the note resolution itself. *The note of resolution must be a step away from the non-harmonic tone (preferably 1/2 step*

Example I:37



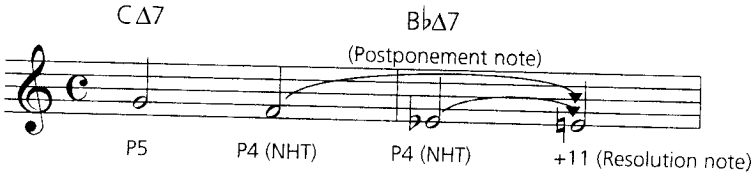
In the above example, the non-harmonic tone and the postponement note are on opposite sides of the resolution note, which targets the resolution note well. The non-harmonic tone resolves indirectly to the resolution note by 1/2 step.

Example I:38



In the above example, the non-harmonic tone and the postponement note are on the same side of the resolution note (less effective for targeting the resolution note, but okay).

Example I:39

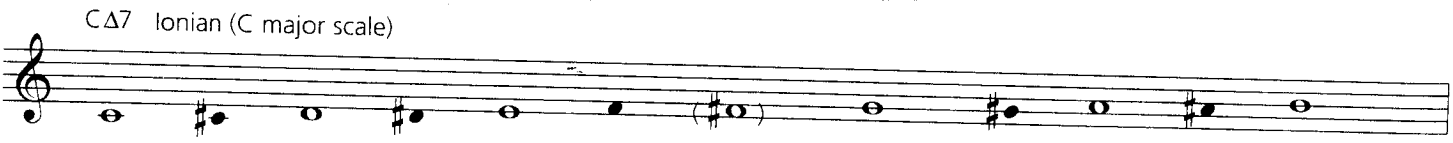


In the above example, the postponement note is also a non-harmonic tone, which resolves directly by 1/2 step. The first non-harmonic tone resolves indirectly by 1/2 step.

Indirect resolution may occur within the chord's duration (as in Example I:37, above), or as the chord changes (as in example I:38, above), or after the chord has changed (as in Example I:39, above).

To prepare for playing and resolving non-harmonic tones in an improvised solo, first select a single chord and chord scale as the harmonic setting. Write out a scale identifying all the harmonic tones with an open note (𝅝), and all the non-harmonic tones (diatonic and non-diatonic) with a closed note (𝅗𝅥).

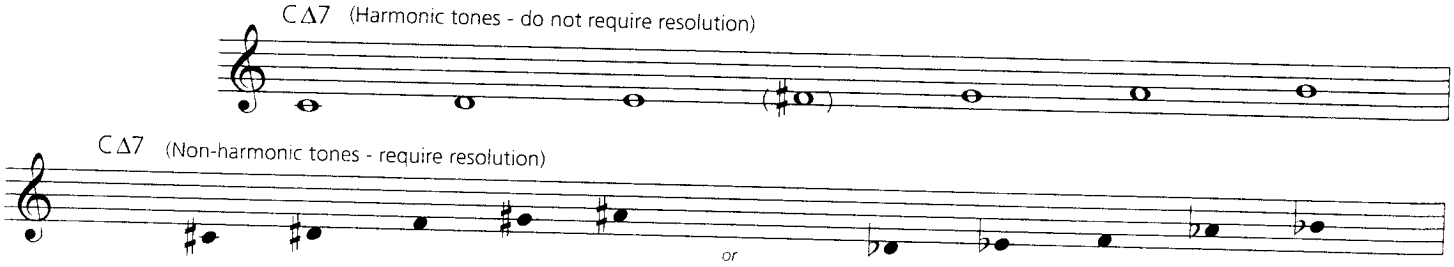
Example I:40



[Note: In many cases, the augmented 11th (#11) as a special effect may be considered a harmonic tone on a major tonality, even though the chord scale is Ionian (the major scale).]

Then group the harmonic tones into one scale and the non-harmonic tones into another to clearly see the distinction.

Example I:41



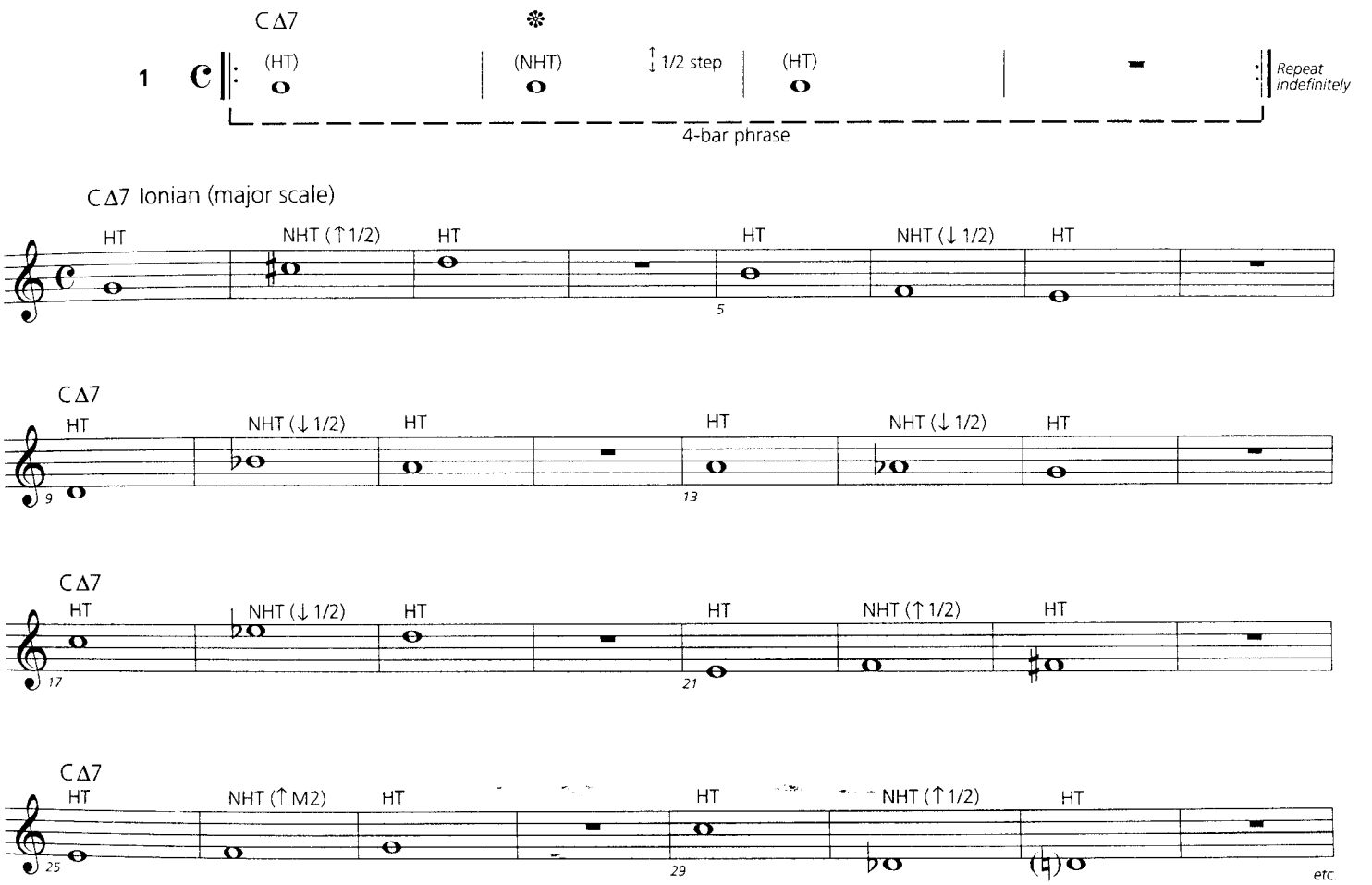
The harmonic tones of the CΔ7 Ionian scale form the C Lydian mode, or the G major scale starting on C. The non-harmonic tones of the CΔ7 Ionian scale form a D♭ pentatonic scale.

Resolving Non-Harmonic Tones - Exercise #1: "Direct Resolution"

Using the following rhythms but choosing your own melody notes, solo in tempo on a single chord (e.g. CΔ7, Ionian) in 4-bar phrases. All notes marked with "❋" should be non-harmonic tones. Resolve non-harmonic tones up or down by 1/2 step to the next note of the phrase which should automatically be a harmonic note (a chord tone or allowable tension). Continue each exercise for several minutes at a time using a comping tape of the individual chord for accompaniment. Change the tempo and chord as you like. Record your solos for critique.

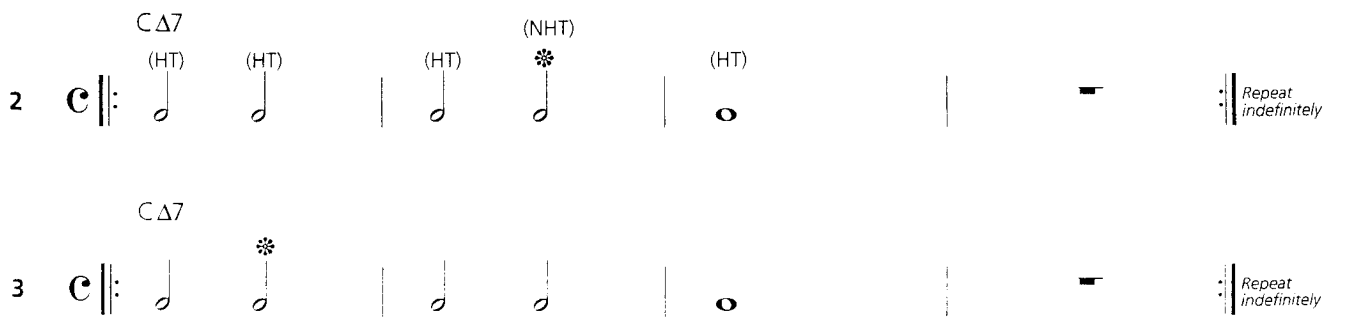
Exercises: Use CΔ7, Ionian, or any single chord and chord scale (♩ = 80 → 100+).

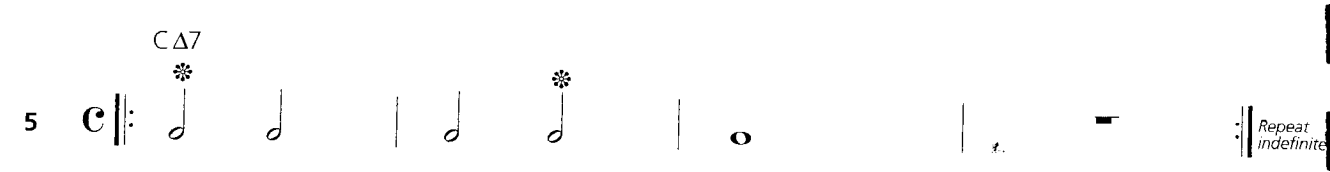
Example I:42



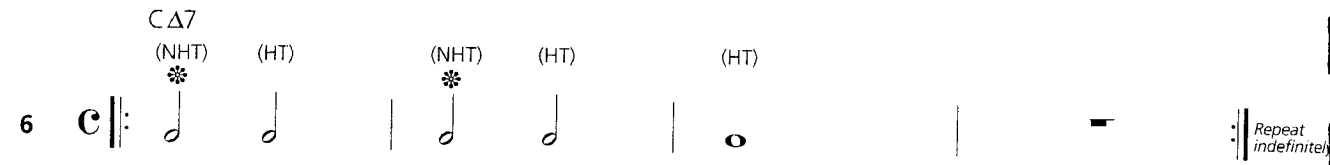
IMPORTANT:

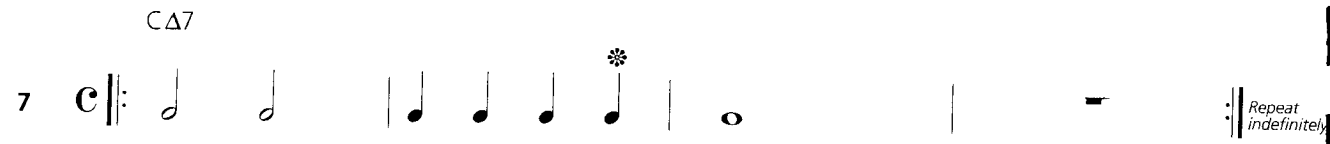
Sustaining a non-harmonic tone for 4 beats or more (as in the above exercise) is not especially common in a solo. But the purpose for it here is to give the ear time to study each non-harmonic tone's sound quality and resolution. After sufficient practice using sustained notes, the ear will learn to quickly recognize when you play a non-harmonic tone and guide its resolution by 1/2 step.

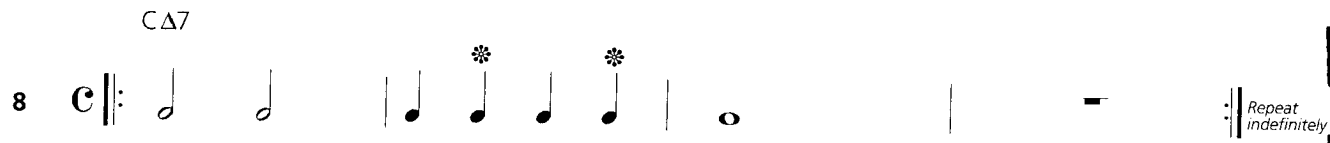


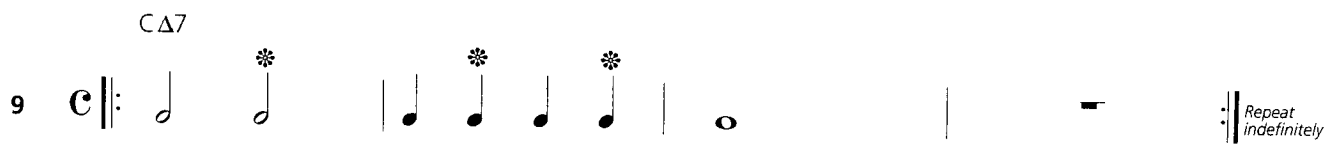


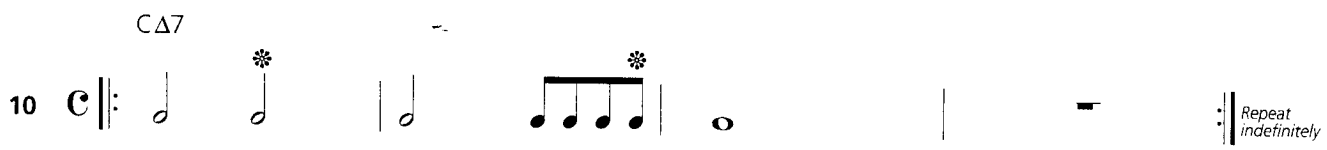
[Note: Non-harmonic tones can be played on strong beats (1st or 1st and 3rd beats in 4/4 time) as in the above exercise.]









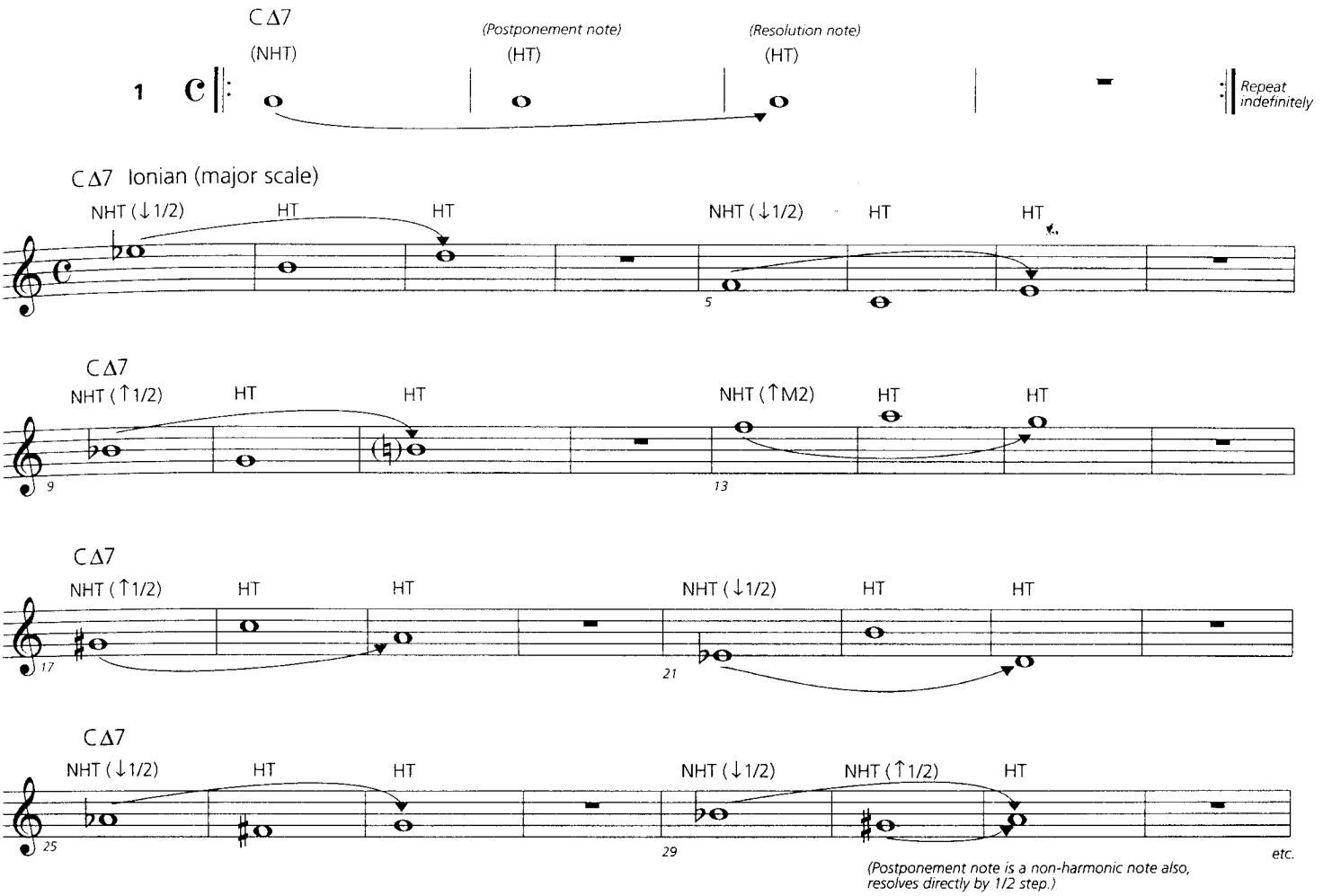


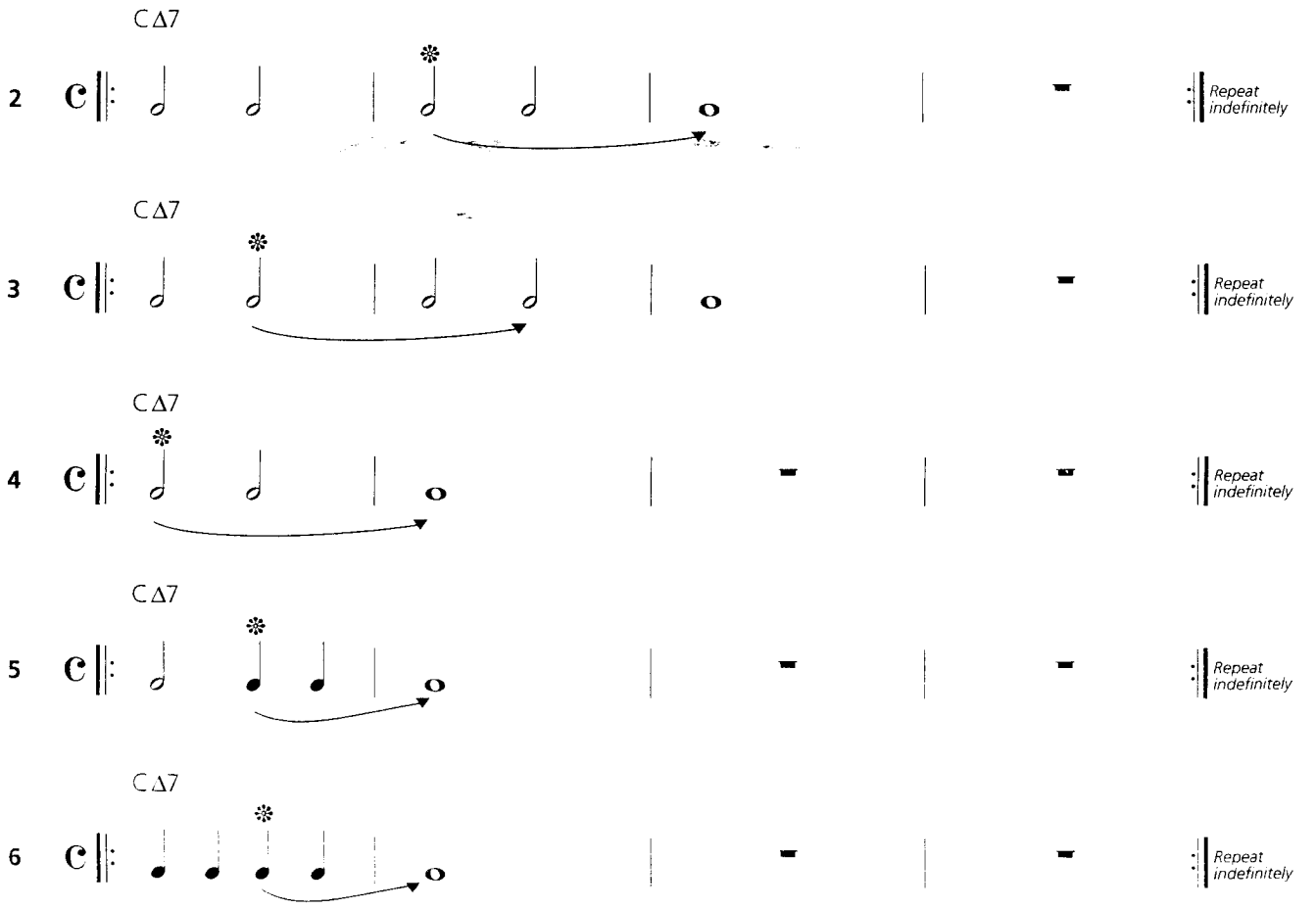
Resolving Non-Harmonic Tones - Exercise #2: "Indirect Resolution"

Using the following rhythms but choosing your own melody notes, solo in tempo on a single chord in 4-bar phrases. Notes marked with "❋" should be non-harmonic tones. Resolve non-harmonic tones using *indirect* resolution (up or down by 1/2 step) to a chord tone or allowable tension. Continue each exercise for several minutes at a time using a comping tape of the individual chord for accompaniment. Change the tempo and chord as you like. Record your solos for critique.

Exercises: Use CΔ7, Ionian, or any chord with an appropriate chord scale (♩ = 80 → 100+).

Example I:43

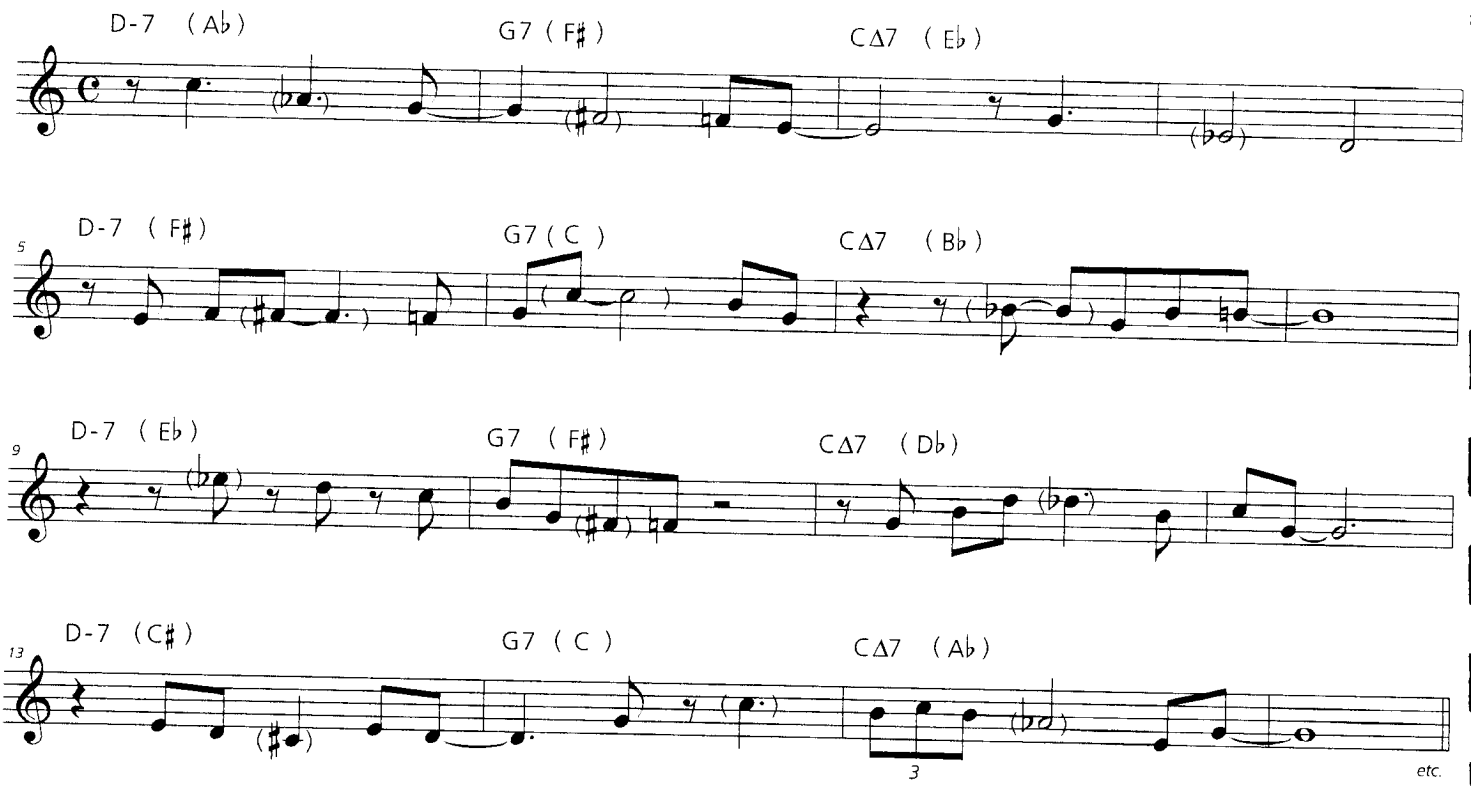

CΔ7
(NHT)
(Postponement note)
(HT)
(Resolution note)
(HT)
1
Repeat indefinitely
CΔ7 Ionian (major scale)
NHT (↓1/2)
HT
HT
NHT (↓1/2)
HT
HT
5
CΔ7
NHT (↑1/2)
HT
HT
NHT (↑M2)
HT
HT
9
13
CΔ7
NHT (↑1/2)
HT
HT
NHT (↓1/2)
HT
HT
17
21
CΔ7
NHT (↓1/2)
HT
HT
NHT (↓1/2)
NHT (↑1/2)
HT
25
29
etc.
(Postponement note is a non-harmonic note also, resolves directly by 1/2 step.)


CΔ7
2
Repeat indefinitely
CΔ7
3
Repeat indefinitely
CΔ7
4
Repeat indefinitely
CΔ7
5
Repeat indefinitely
CΔ7
6
Repeat indefinitely

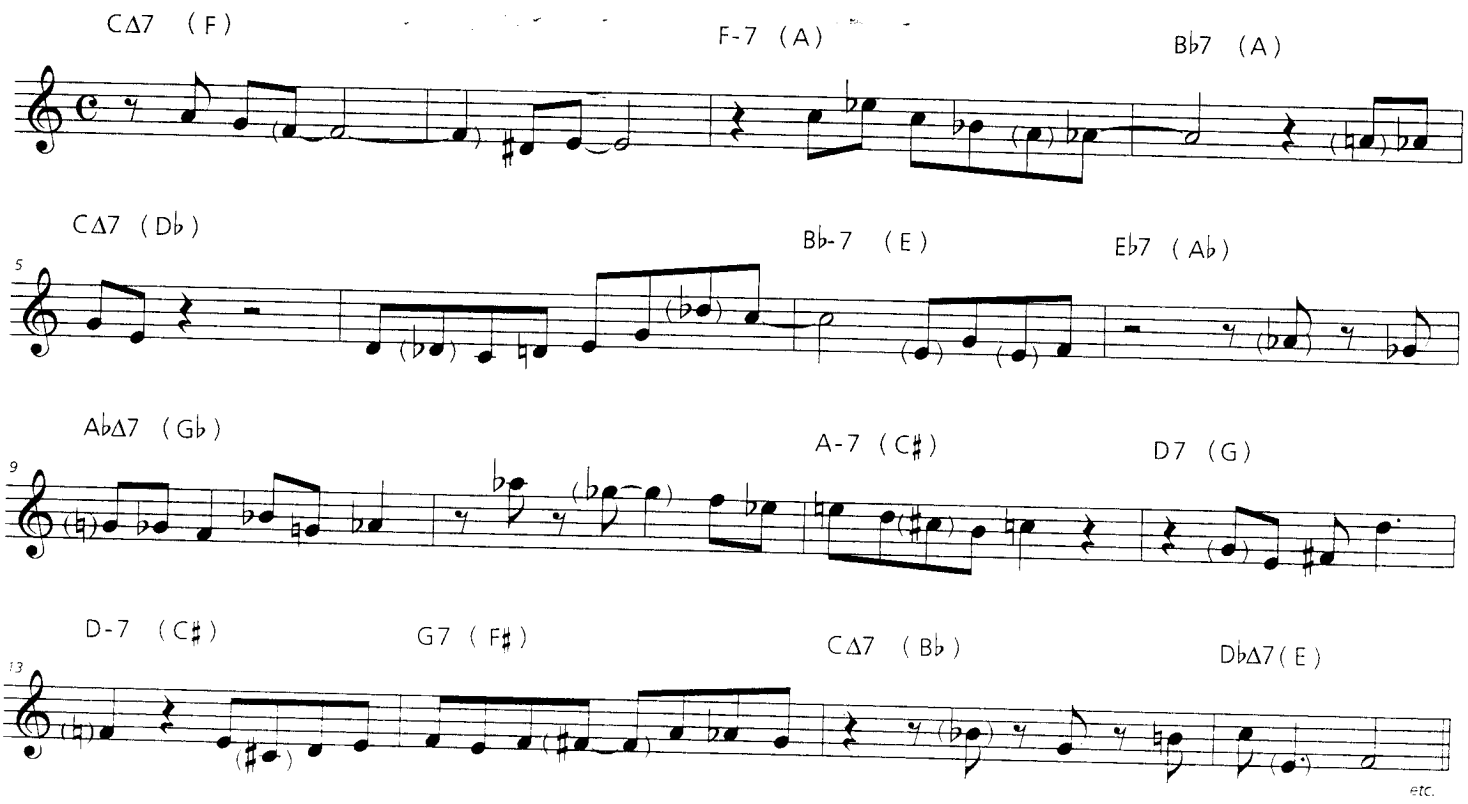
Resolving Non-Harmonic Tones - Exercise #3: "The General Idea"

Using the play/rest approach, solo at a medium-slow tempo on a single chord, chord pattern or familiar tune progression with chords of longer duration (2 bars each, or so) while focusing on the general idea of playing and resolving non-harmonic tones. *Choose one or two specific non-harmonic tones per chord to "aim" for while soloing.* Use direct and indirect resolution. Play the non-harmonic tones for long durations (i.e., 2, 3, 4 beats, etc.) to "hear/study" their effect, as well as for shorter durations to practice making quicker resolutions. Continue this for several minutes at a time using a comping tape for accompaniment. Record your solos for critque.

Example I:44R

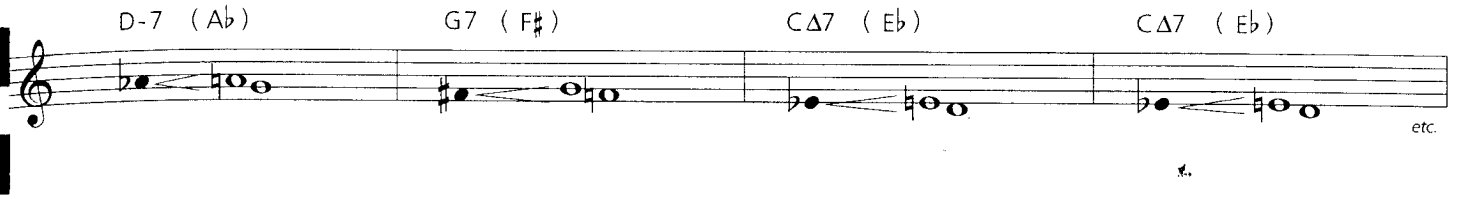


Example I:45R



[Note: It may be helpful when working with specific non-harmonic tones to notate them in each measure under the chord symbol along with their resolution notes.]

Example I:46



Example: Daily Practice Schedule - Non-harmonic Tones

1. 30 minutes on specific exercises using direct resolution.
2. 30 minutes on specific exercises using indirect resolution.
3. 40 minutes on the general idea of playing and resolving non-harmonic tones in an improvised solo.
4. 20 minutes on the spirit and mood of the music.

Melodic Motion At The Point Of Chord Change

This topic deals with training the mind and ear to guide melodic movement during a chord change. As with resolving non-harmonic tones, the rules and exercises are rather restrictive, intended for [conscious] application while practicing versus performing. It is important to recognize that these principles have provided the foundation for constructing strong, lyrical melody for hundreds of years, and therefore should be regarded as fundamental to the art, i. e. the rule should be learned *before* it is broken.

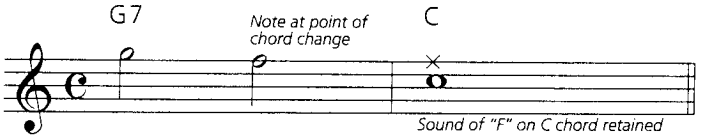
Contrast is a stimulating feature of music, used by a player to attract and develop interest in the solo. Two musical actions which involve contrast and therefore attract attention are:

1. melodic leaping, and
2. changing chords.

With melodic leaping, attention is drawn (at the moment of the leap) to the notes on both sides of the leap; the wider the leap, the greater the attention. (A leap is any melodic interval greater than a major 2nd.) With changing chords, attention is drawn (at the point of the chord change) to both the chord of the moment and the next chord; the more harmonically colorful the change, the greater the attention.

Whenever these two actions occur simultaneously in music, i.e. when the melody leaps at the point of a chord change, there is extra attention drawn to the music. As a result of this attention, the mind's ear has a strong tendency to retain or remember (through "pitch memory") the pitch of the note leaped from while the *next* chord is sounded.

Example I:47

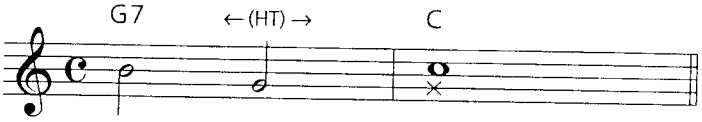


The mind's ear also retains the sound of the melody/harmony relationship between the note leaped from and its chord.

Example I:48

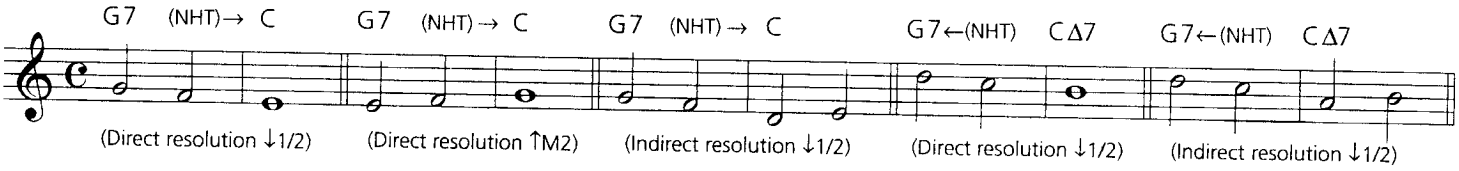
Therefore, when leaping at the point of a chord change, the note *leaped from* should be a harmonic tone ("agreeable" tone) on both the chord of the moment and the next chord as well.

Example I:49



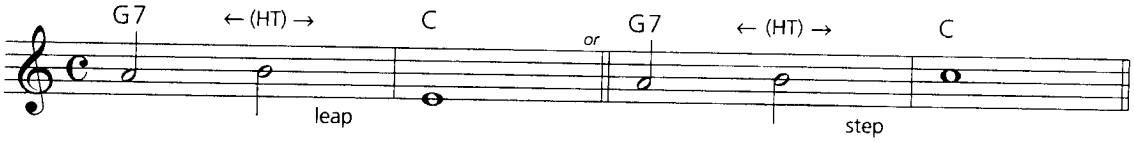
If the note at the point of chord change is a non-harmonic tone ("disagreeable" tone) on either the chord of the moment or the next chord, it should resolve directly or indirectly by step, preferably 1/2 step, to the next chord.

Example I:50



[Note: If the note at the point of chord change is a harmonic tone on both the chord of the moment and the next chord, melodic motion by step or leap is possible.]

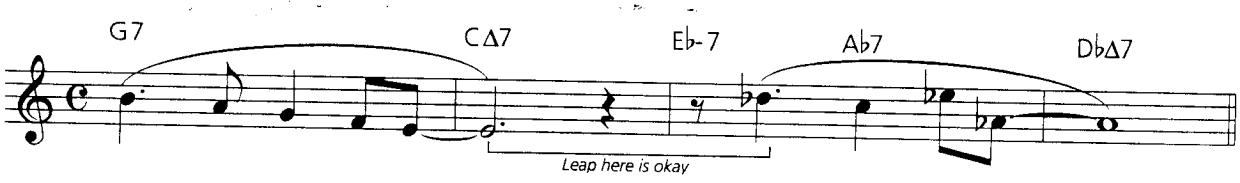
Example I:51



Exceptions to the "leaping at point of chord change" rule are:

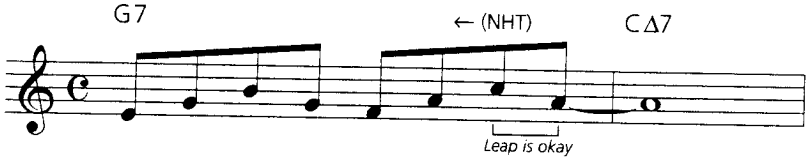
(1) When a leap and simultaneous chord change occur after the end of a melodic phrase (i.e. in between phrases), usually indicated by a rest, a sustained note, or both, creating a break in the melodic continuity.

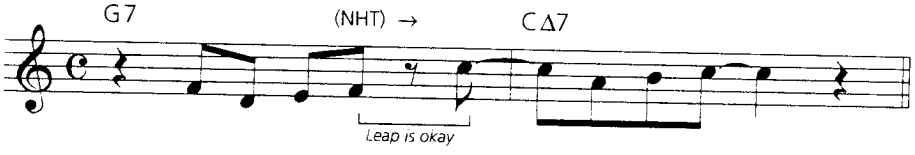
Example I:52



(2) When a leap and simultaneous chord change involve melody notes contained in an independently strong melodic pattern or sequence.

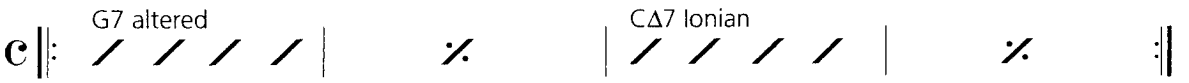
Example I:53



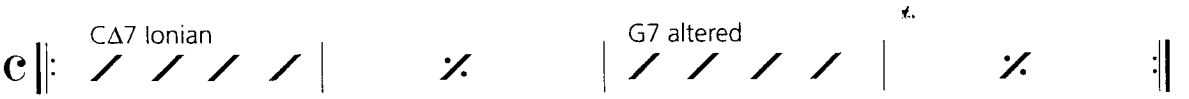


Melodic Motion During A Chord Change - Exercise #1: "Direct Resolution"

Using the following rhythms (see example I:54) but choosing your own melody notes, solo at a medium-slow tempo on a 2-chord pattern in 4-bar phrases, e.g.

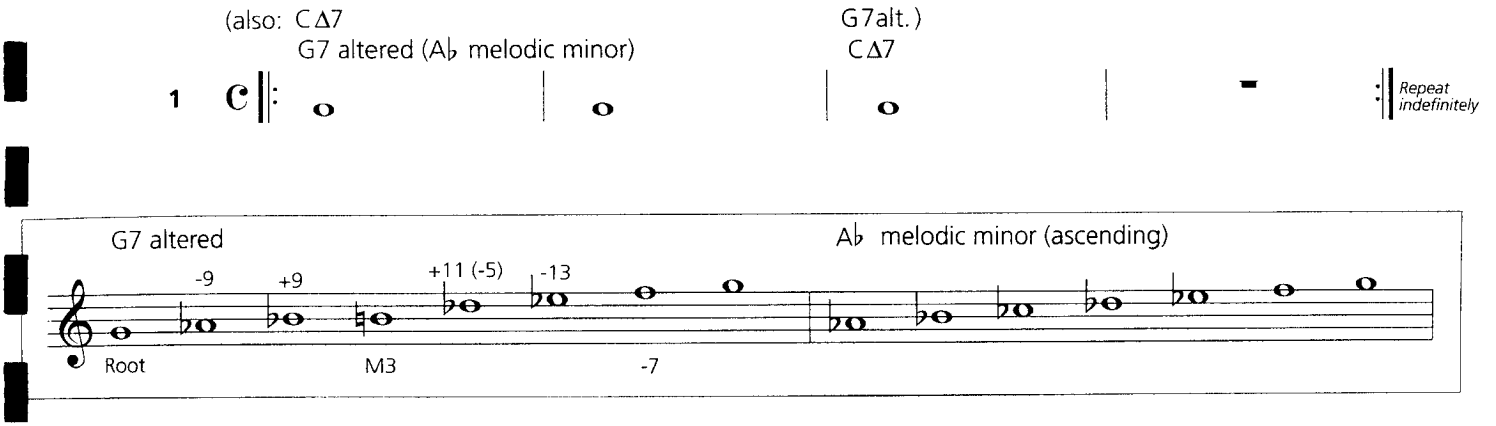


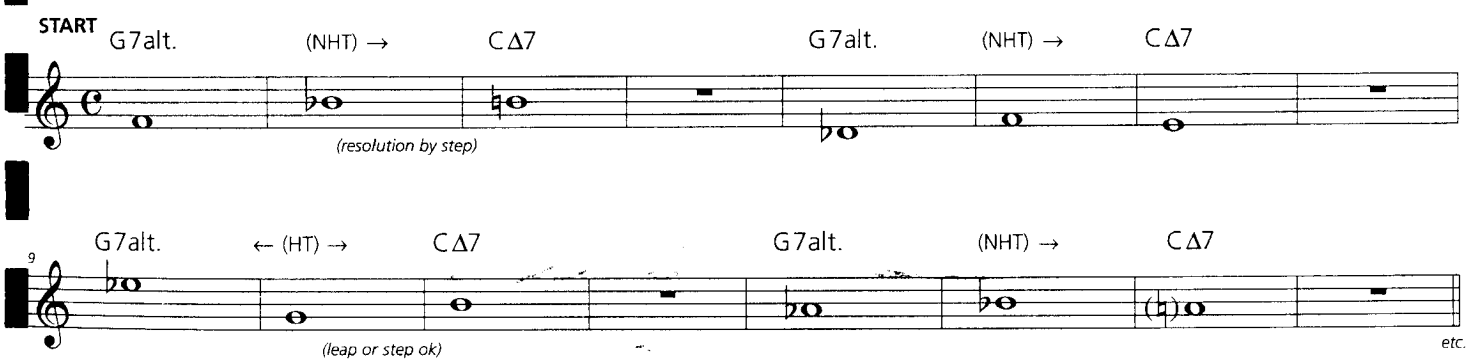
or

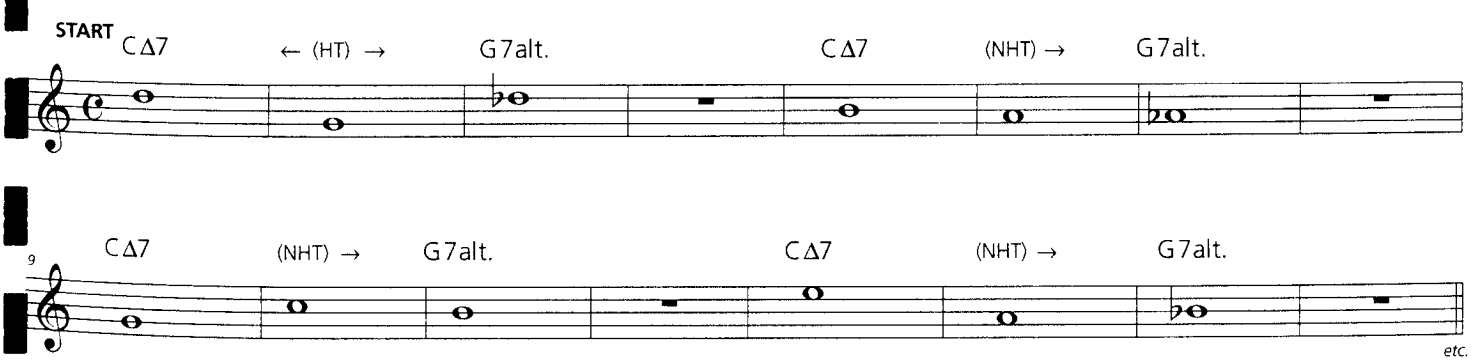


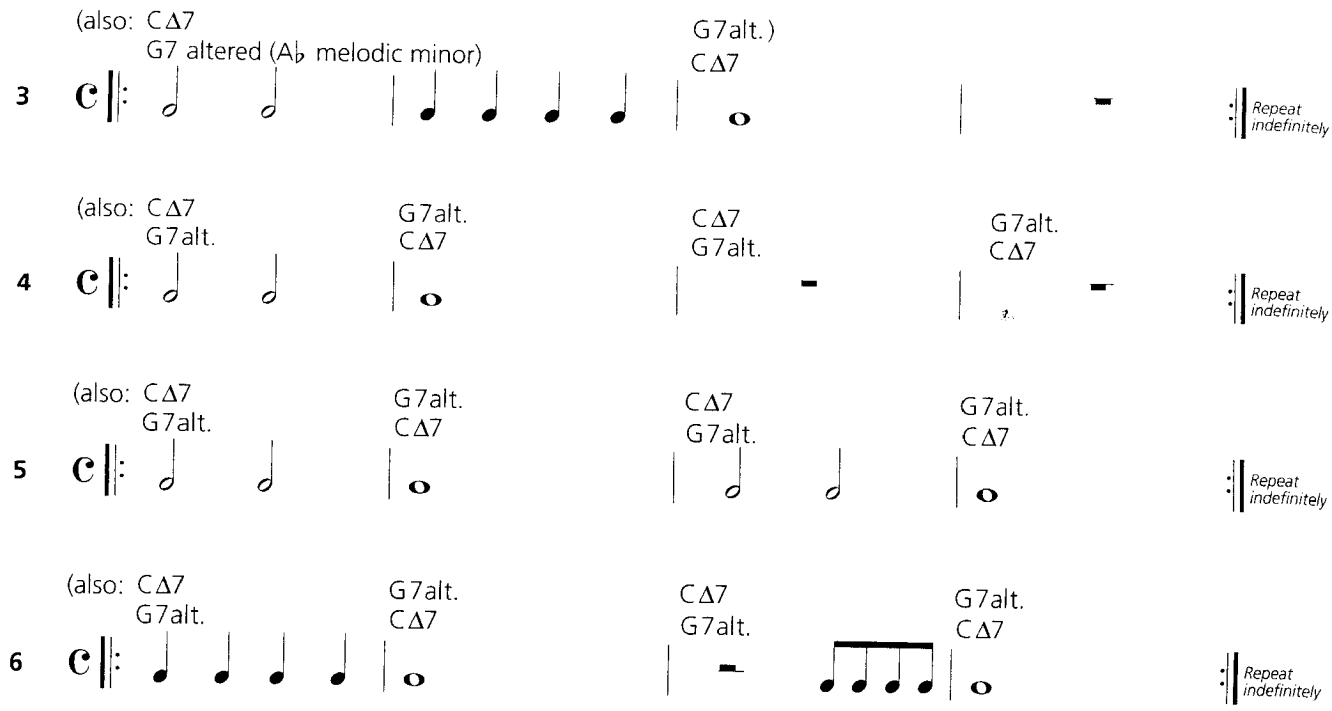
Observe the "leaping at point of chord change" rule. Use *direct* resolution when resolution is necessary. Continue each exercise for several minutes at a time.

Example I:54





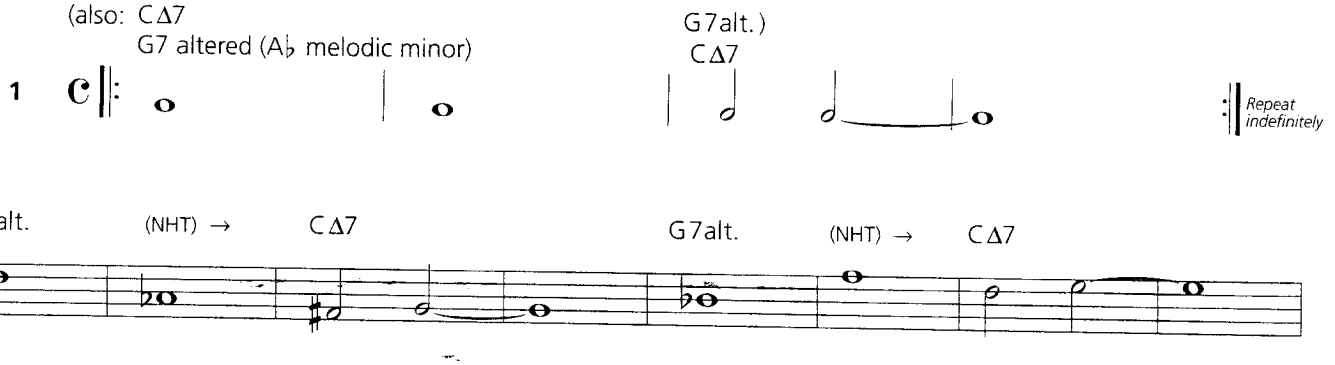


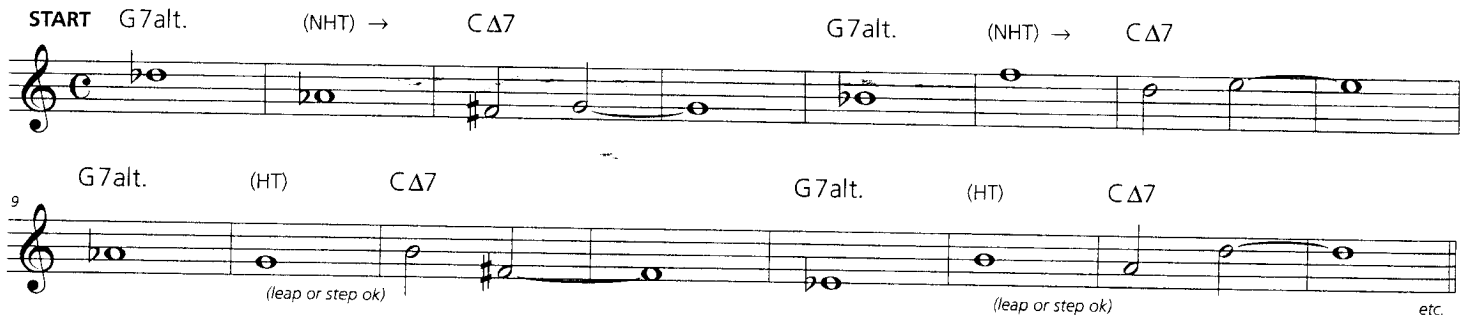


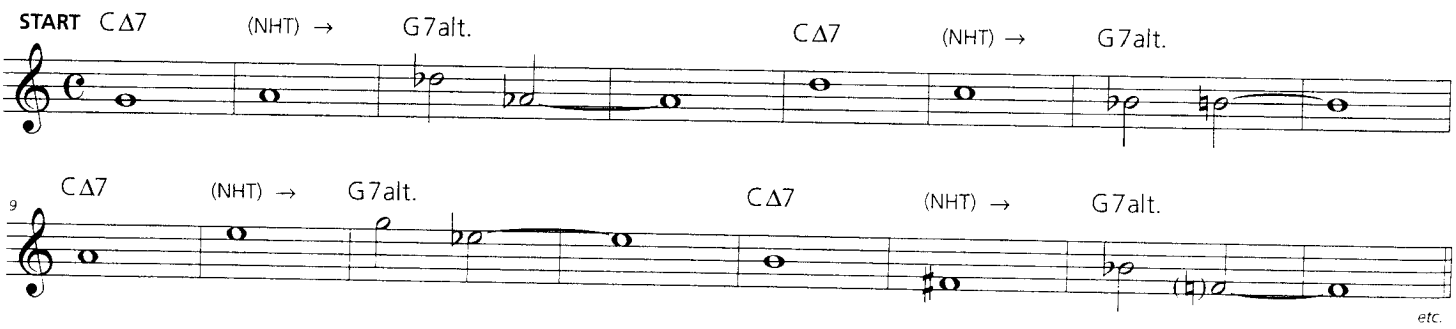
Melodic Motion During A Chord Change - Exercise #2: "Indirect Resolution"

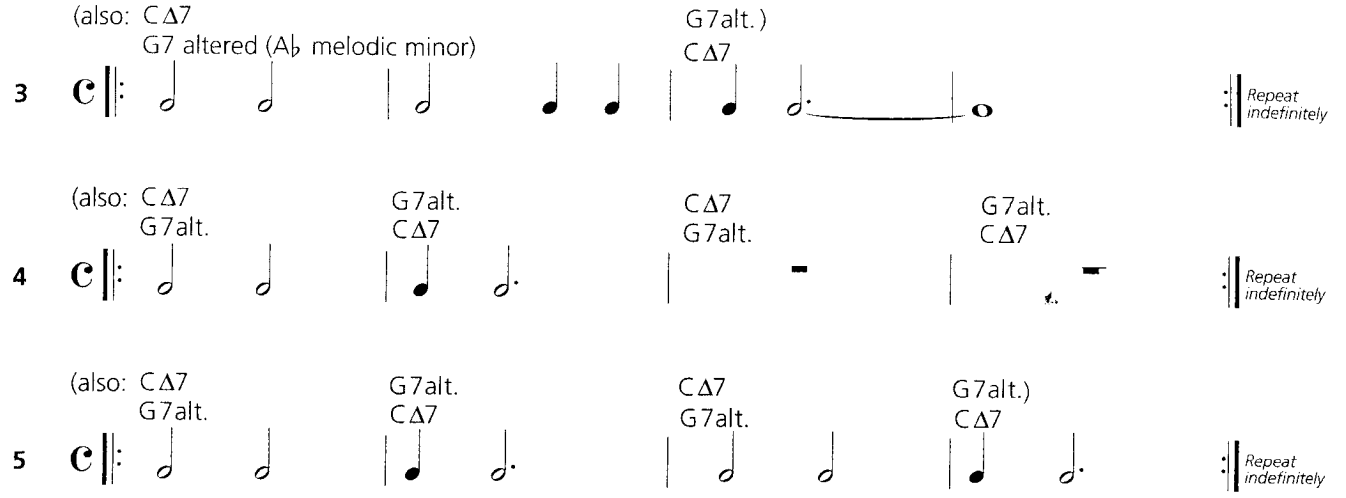
Same instructions as Exercise #1, substituting indirect resolution by 1/2 step for direct resolution when resolution is necessary.

Example I:55





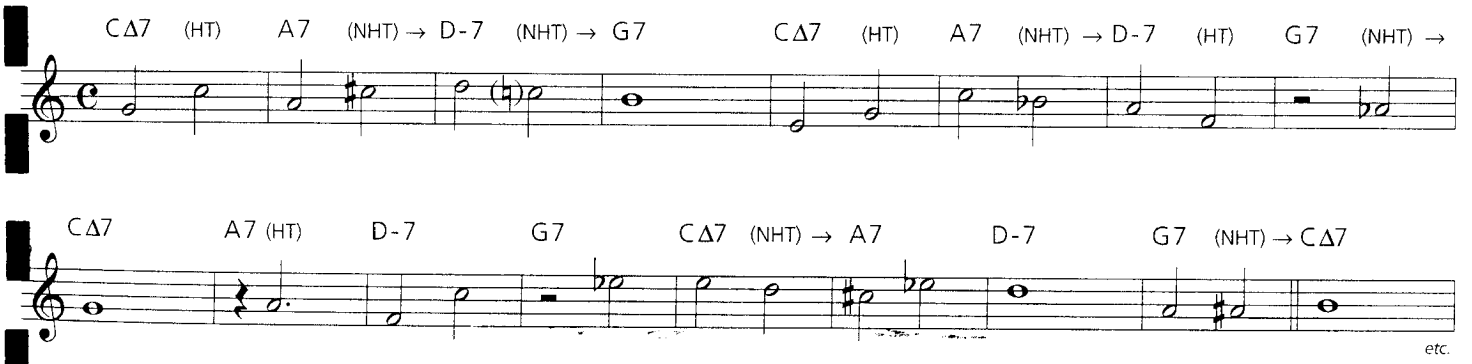




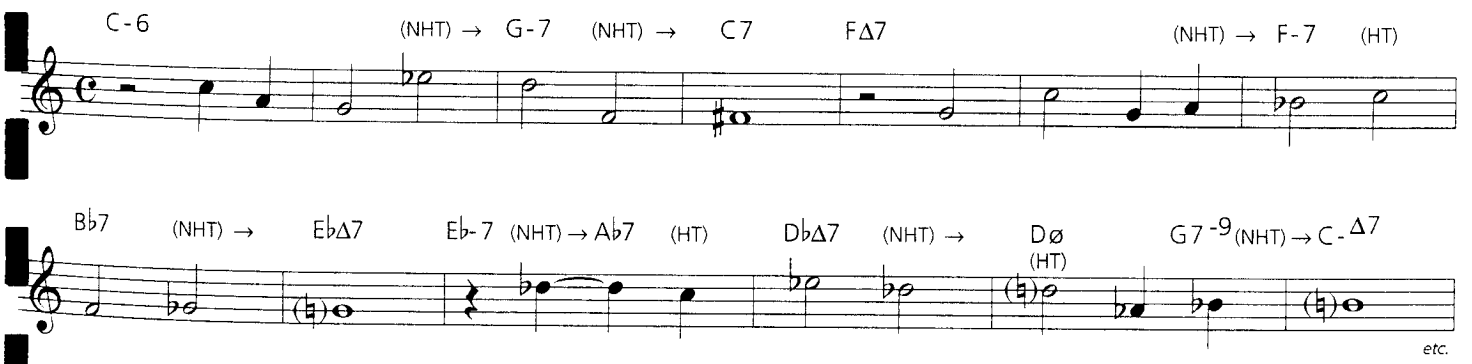
Melodic Motion During A Chord Change - Exercise #3: "The General Idea"

Using the play/rest approach, improvise at a medium-slow tempo on a 2, 3 or 4-chord pattern or a familiar tune progression using notes of long duration only, predominantly half notes, whole notes (occasional quarter notes are okay). Observe the "leap at point of chord change" rule except between melodic phrases. Use direct or indirect resolution by step (preferably 1/2 step) when resolution is necessary. Continue this for several minutes at a time using a comping tape for accompaniment. Record your solos for critique and transcription.

Example I:56



Example I:57



Example: Daily Practice Schedule - Melodic Motion at Chord Change

1. 40 (20) minutes on specific exercises using direct resolution when resolution is necessary.
2. 40 (20) minutes on specific exercises using indirect resolution when resolution is necessary.
3. 20 (10) minutes on the general idea of observing the "leap at point of chord change" rule.
4. 20 (10) minutes on the spirit and mood of the music.

Guide-Tones

Guide-tones are those chord tones which are responsible for creating a chord's essential harmonic (verti quality or sonority. They are also the unstable tones of the chord, meaning that they often suggest a desir to move or resolve in the context of a chord progression: namely, the 3rd and/or 7th of a conventional 4-par 7th chord.

If the 5th of a particular chord type is not a perfect 5th but an altered 5th (e.g. the lowered 5th of a mino 7♭5 chord, or the raised 5th of an augmented dominant 7th chord), it can be considered a "true" guide-to as well because of its unstable and essential character.

Unless they are *non-diatonic* to the key of the moment, the root and perfect 5th of a chord are not thought of as true guide-tones, per se, because (1) they do not yield essential chord quality, and (2) they are more stab sounding than 3rds, 7ths or altered 5ths. For example, D♭ and A♭ (root and perfect 5th of the D♭Δ7 chord) would be considered unstable and true guide-tones when D♭Δ7 occurs in the key of C major. (D♭Δ7 is ♭IIΔ7 in C major.) However, the harmonic stability of the root and the perfect 5th (when they *are* diatonic note of the key) makes them good choices for creating a temporary or permanent point of rest in a guide-tone line (such as at the end of a phrase), although their use is not restricted exclusively to this function.

[Note: Since the (allowable) tensions of a chord are relatively unstable tones and in general create extende chord sound, they can be used occasionally as more "colorful" guide-tones to create a somewhat more sophisticated guide-tone line. Basic chord sound, however, must always be established or implied (i.e. no distorted or obscured) when tensions are used in guide-tone lines.]

Guide-Tone Lines

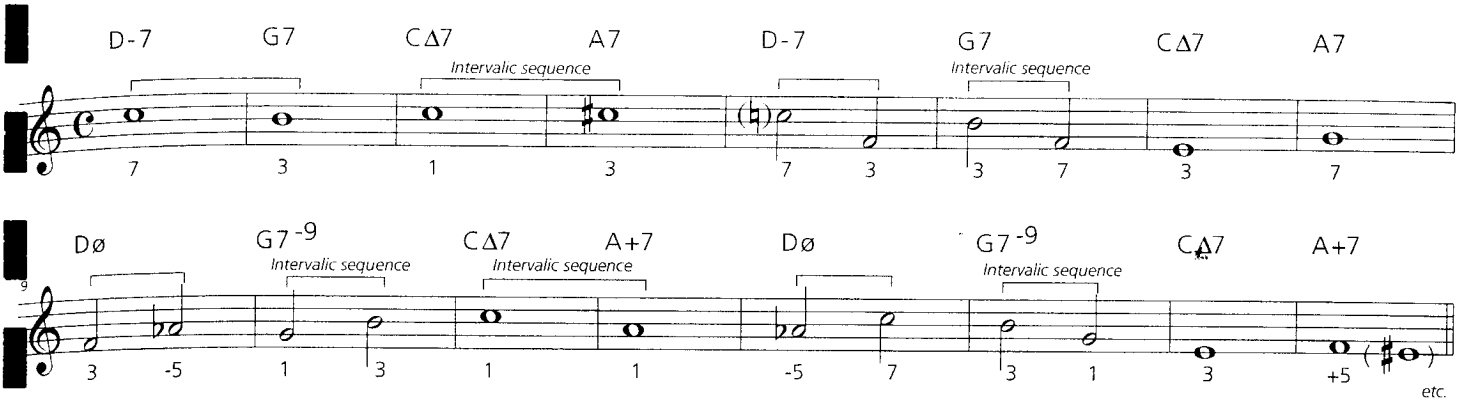
A guide-tone line is a melodic line comprised primarily of guide-tones from the chord progression, but can involve different levels of "sophistication". For example, a guide-tone line can be comprised of the following

1. **guide-tones only (3rds, 7ths, altered 5ths)** - defines the essential harmonic quality of chords using unstable chord tones only, or
2. **guide-tones, roots and perfect 5ths (chord tones)** - defines or implies basic chord quality using stable and unstable chord tones, or
3. **guide-tones, roots, perfect 5ths and allowable tensions (chord sound)** - defines or implies chord quality using stable and unstable chord tones and tensions.

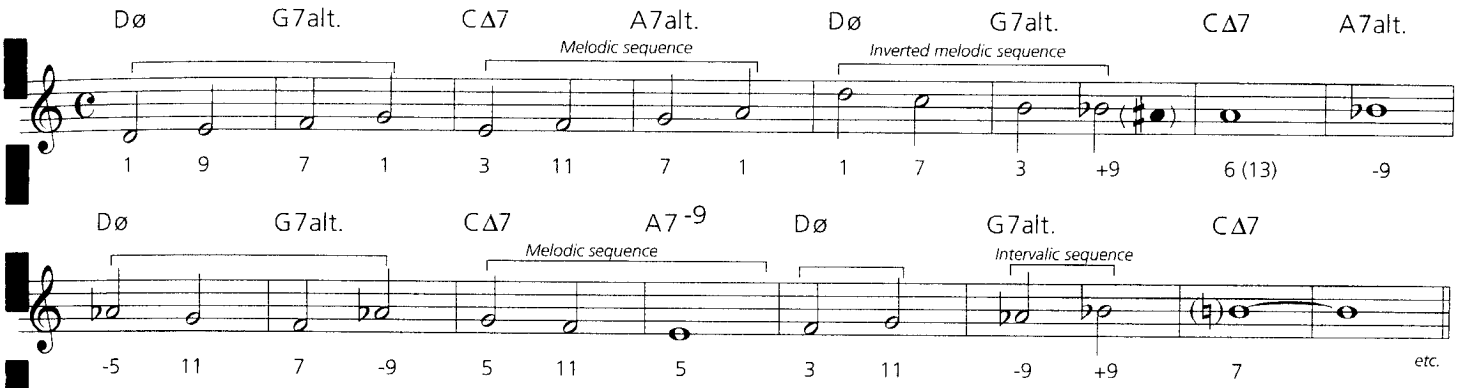
The note values in a basic guide-tone line consist mostly of sustained durations (e.g. half notes, whole notes, etc.), and can include rhythmic anticipations and syncopation to some degree. They often move in stepwise motion for the sake of smoothness, but leaping can be used to create interest and balance in the melodic curve. Leaps are subject to the "leaping at the point of chord change" rule, except between melodic phrases. Melodic continuity and development can be created in guide-tone lines through sequential phrases (i.e. repeating basic elements of previous ideas in new ideas). This gives the line better compositional quality, which is desirable. Guide-tone lines, like song-melody lines, are written in phrases, with ample rest or inactivity in between to allow the melody to "breathe". (See upcoming examples of melodic sequence in guide-tone lines.)

When played simultaneously with only the root motion or bass line of a chord progression, a guide-tone line should state or imply (and never obscure) the essential harmonic quality of each chord, while creating a strong melodic or linear connection from chord to chord. Guide-tone lines are often employed as background for an improvised solo but may also be used as the melodic source of the solo itself. (See Embellishing Guide-Tone Lines.)

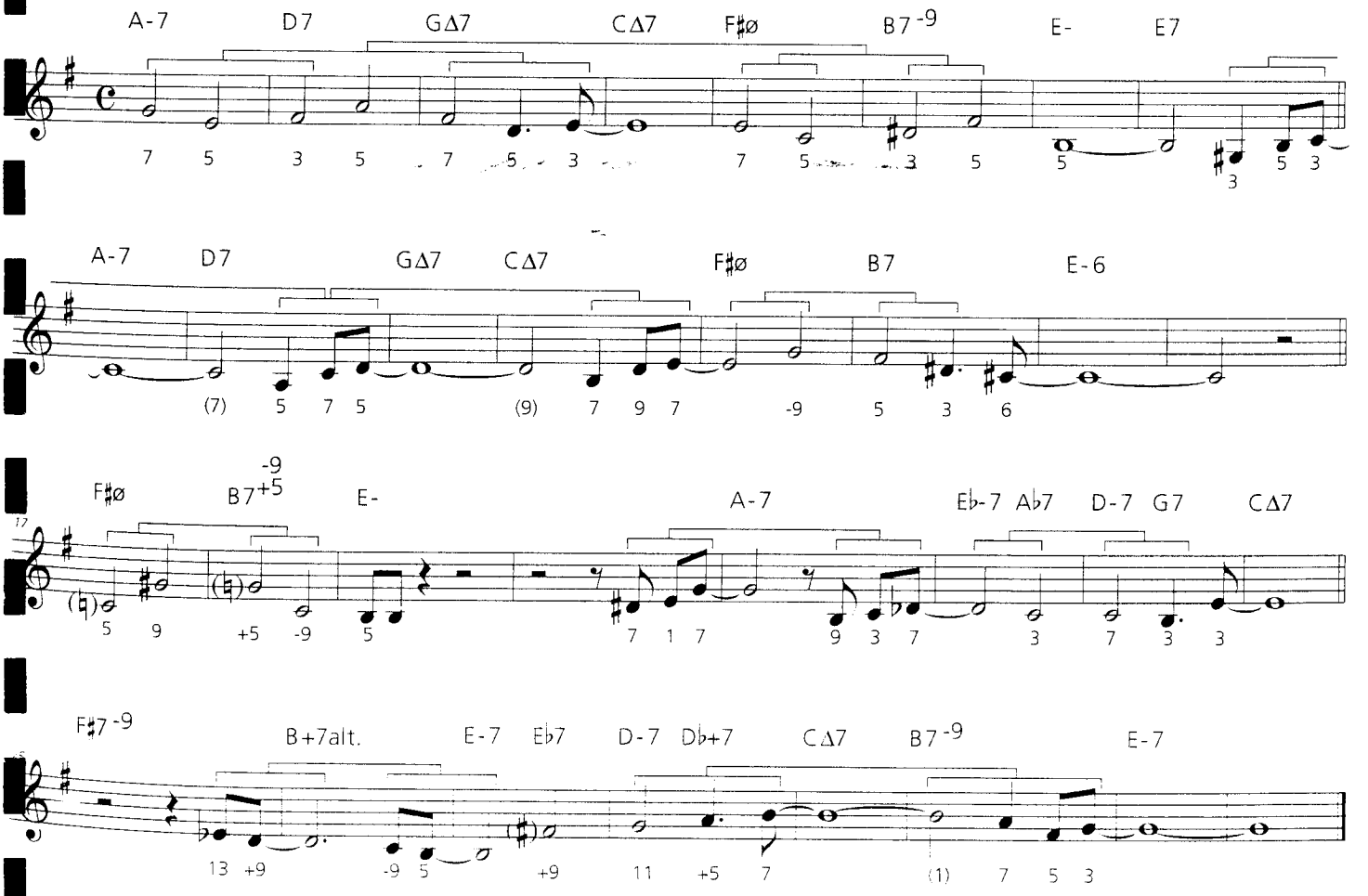
Example I:58R



Example I:59R



Example I:60R



Guide-Tone Lines - Exercise #1: "Write and Play"

Write out and play guide-tone lines in tempo for various chord patterns and tune progressions. Use comping tapes of: (1) root motion or bass line only; and (2) full chordal accompaniment. Begin by writing guide-tones only (3rds, 7ths, altered 5ths), then include roots and perfect 5ths, then allowable tensions. Observe the "leaping at point of chord change" rule. Create continuity and development through melodic sequence. Record lines for critique.

Guide-Tone Lines - Exercise #2: "Improvising Guide-Tone Lines"

Using the play/rest approach, practice improvising guide-tone lines in tempo over chord patterns and tune progressions. Use comping tapes of: (1) root motion or bass line only; and (2) full chordal accompaniment. Begin by playing guide-tones only, then chord tones only, then chord sound only. Observe the "leaping at point of chord change" rule. Develop melody through melodic sequence. Record solos for critique.

Example: Daily Practice Routine - Guide-Tone Lines

1. 40 (20) minutes on writing guide-tone lines over chord patterns and tune progressions.
2. 20 (10) minutes on playing written guide-tone lines.
3. 40 (20) minutes on improvising guide-tone lines.
4. 20 (10) minutes on spirit and mood of the music.

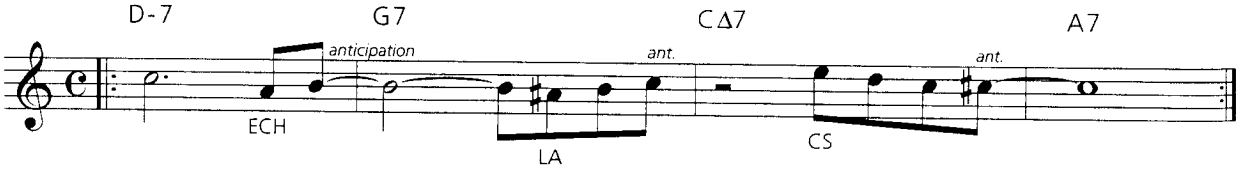
Embellishing Guide-Tone Lines

Embellishing a guide-tone line means adding melody notes to the original, more simplistic line, thereby creating a higher level of rhythmic density. The result sounds similar to an improvised solo. (Review the conventional embellishment techniques discussed in the section on Melodic Embellishment, which can be used here as well.) Rhythmic anticipations and syncopation are necessary to create the feeling of forward motion in the line. Observe the "leaping at point of chord change" rule except between melodic phrases.

Example I:61R

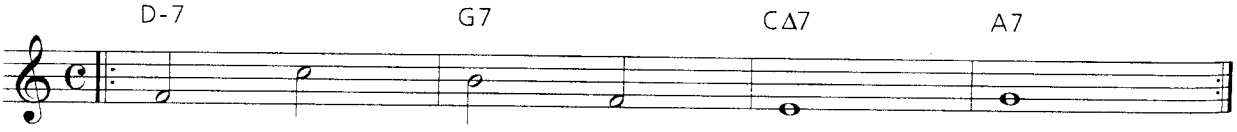
Simple guide-tone line.

Embellished version of above line.

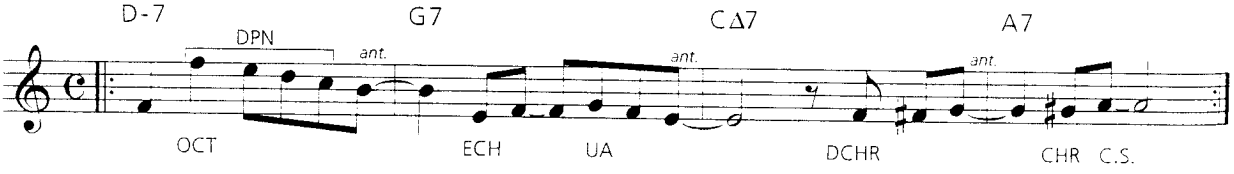


Example I:62R

Simple guide-tone line.



Embellished version of above line.



Example I:63R

Simple guide-tone line.

Dø G7 -9 CΔ7 A7

Embellished version.

a

Dø G7 -9 CΔ7 A7

ant.

SPN UAP A/B

Embellished version.

b

Dø G7 -9 CΔ7 A7

CS CS CS CS

A/B

Embellishing Guide-Tone Lines- Exercise #1: "Write and Play"

Write out simple, basic guide-tone lines on chord patterns and tune progressions. Then write out embellished versions of these guide-tone lines using conventional embellishment techniques, incorporating various amounts of activity and space (rest). Observe the "leaping at the point of chord change" rule except between phrases. Using comping tapes of (1) the root motion or bass line only and (2) the full chordal accompaniment, play the original [written] guide-tone line followed by the embellished version. Record lines for critique.

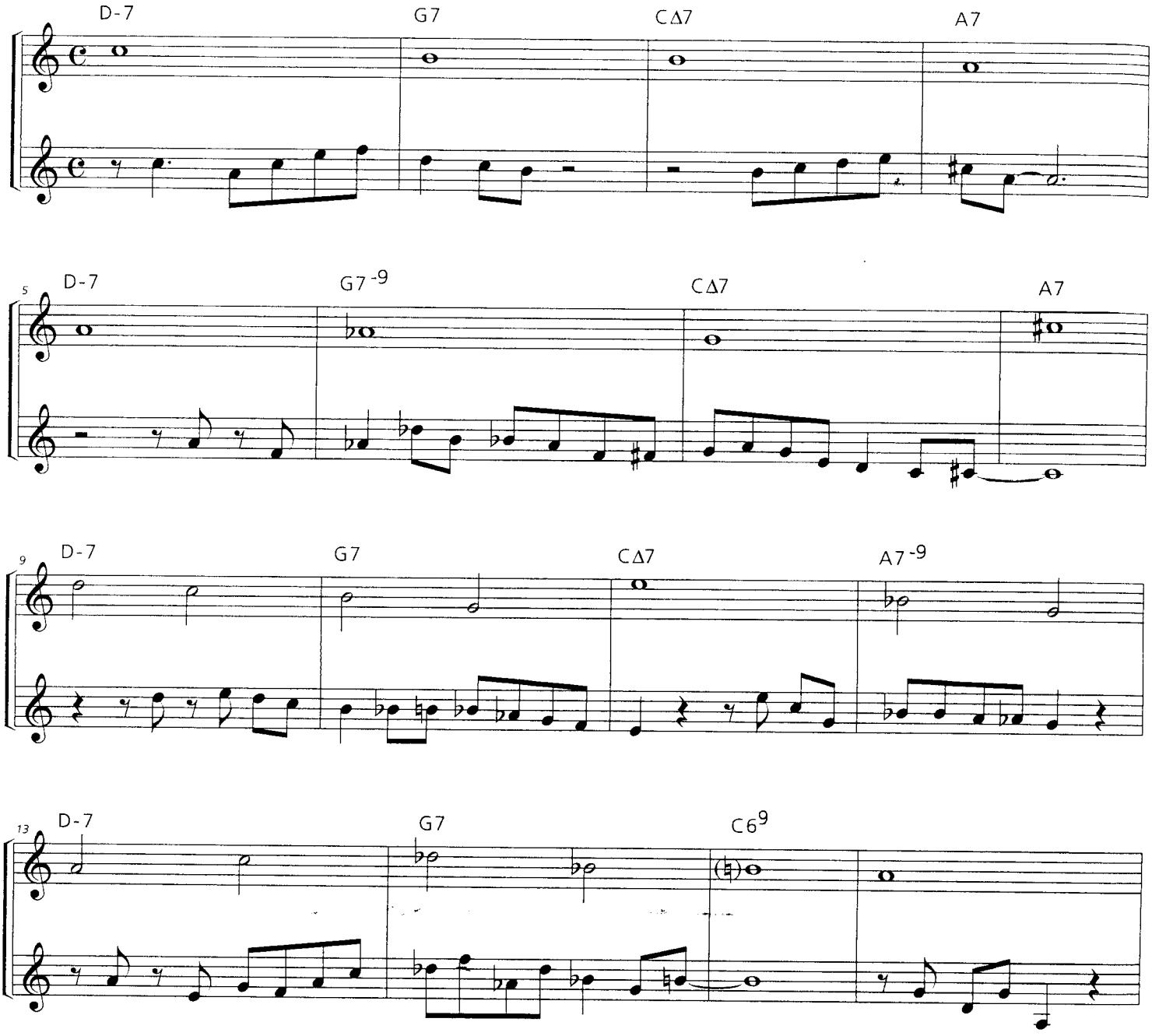
Embellishing Guide-Tone Lines - Exercise #2: "Improvising the Embellishments"

Same instructions as Exercise #1 except *improvise* the embellished versions of the original guide-tone lines instead of writing them out.

Embellishing Guide-Tone Lines - Exercise #3: "Points of Departure and Targets"

On a chord pattern or tune progression, write out a simple guide-tone line using one note per chord. Thinking of one guide-tone as the "point of departure" and the next guide-tone as the "target", improvise a melody line connecting two (or more) adjacent guide-tones together. Vary the amounts of activity used to connect the guide-tones. End some phrases with notes of short duration, others with a sustained note. Continue this throughout the solo, resting (some) after each "connection" (or series of connections) is made. (See example on next page.)

Example I:64R



Example: Daily Practice Schedule - Embellishing Guide-Tone Lines

1. 30 minutes on exercise #1.
2. 30 minutes on exercise #2.
3. 40 minutes on exercise #3.
4. 20 minutes on the spirit and mood of the music.

Chord Scales

Chord scales are scales applied to chords for the purpose of deriving melody in an improvised solo. They can be useful tools provided you recognize that "thinking" about scales while you improvise must [ultimately] be transcended. In the meantime, chord scales are invaluable for developing a more linear approach to improvising, and for revealing tonal possibilities on chords which, otherwise, might go undiscovered.

It is not my intention here to present an in-depth study or explanation of chord scales, as this information is already available in numerous books. (It must be assumed, therefore, that the student has had at least some prior experience with chord scales and harmonic analysis.) My objective is to show effective ways to practice scales and apply them to chords. Following are 2 charts which summarize the theory of conventional chord scale formation and application.

MODES AND CHORD SCALES INFOR

Chord Type	Corresponding Mode or Chord Scale	Parent Scale and Location	Diatonic Function and Origin
Major 7th (Major 6th and Major Triad also)	IONIAN	Major Scale on Root	IΔ7 in Major
	LYDIAN	↓ P4 (↑ P5) Major Scale	IVΔ7 in Major
Dominant 7th	MIXOLYDIAN	↓ P5 (↑ P4) Major Scale	V7 in Major
	LYDIAN ♭7	↓ P4 (↑ P5) Melodic Minor	IV7 in Melodic Minor
	ALTERED (Augmented Dominant)	↑ -2 (1/2 step) Melodic Minor	VII7 in Melodic Minor
	HALF/WHOLE	Root, 1/2, 1..., Root	Symmetrical Scale
	MIXOLYDIAN ♭9 ♭13 (Augmented Dominant Also)	↓ P5 (↑ P4) Harmonic Minor	V7 in Harmonic Minor
	WHOLE TONE (Aug. Dominant)	Root, 1, 1..., Root	Symmetrical Scale
Dominant 7 sus 4	MIXOLYDIAN sus 4	↓ P5 (↑ P4) Major Scale	V7 in Major
Dominant 7 sus 4 ♭9	MIXOLYDIAN sus 4 ♭9	↓ P5 (↑ P4) Harmonic Minor	V7 in Harmonic Minor
Minor/Major 7th (Minor Triad Also)	MELODIC MINOR	Melodic Minor on Root	I-$^{\Delta 7}$ in Melodic Minor
	HARMONIC MINOR	Harmonic Minor on Root	I-$^{\Delta 7}$ in Harmonic Minor
Minor 6th (Minor Triad Also)	MELODIC MINOR	Melodic Minor on Root	I-6 in Melodic Minor
Minor 7th (Minor Triad Also)	DORIAN	↓ M2 Major Scale	II-7 in Major
	PHRYGIAN	↓ M3 Major Scale	III-7 in Major
	AEOLIAN	↑ -3 Major Scale	VI-7 in Major
Minor 7♭5 (Half Diminished)	LOCRIAN	↑ -2 (1/2 step) Major Scale	VII-7♭5 in Major
	LOCRIAN ♮9	↑ -3 Melodic Minor	VI-7♭5 in Melodic Minor
	LOCRIAN ♮13	↓ M2 Harmonic Minor	II-7♭5 in Harmonic Minor
Diminished 7th (Dim. Triad Also)	WHOLE/HALF	Root, 1, 1/2...., Root	Symmetrical Scale
Augmented/Major 7th (Augmented Triad Also)	IONIAN/AUGMENTED	↓ -3 Harmonic Minor	♭III+$^{\Delta 7}$ in Harmonic Minor
	LYDIAN/AUGMENTED	↓ -3 Melodic Minor	♭III+$^{\Delta 7}$ in Melodic Minor
	MINOR 3rd/MINOR 2nd	Root, -3, -2....., Root	Symmetrical Scale

CHART - CHORD SCALES SUMMARY

Chord Tones	Diatonic Tensions (Chord Formed by Tensions)	Diatonic Non-Harmonic Notes	Most Common Application (Subject to Melody and Chord Symbol Agreement)
1, 3, 5, 7 (6)	9, 11, 13 (II-)	11 (4)	IΔ7 (All "Tonic" Major Chords)
1, 3, 5, 7 (6)	9, ♯11, 13 (IIΔ)	0	IVΔ7 (All "Non-Tonic" Major Chords)
1, 3, 5, ♭7	9, 11, 13 (II-)	11 (4)	V7 in Major, I7 Blues, V7/IV in Major
1, 3, 5, ♭7	9, ♯11, 13 (IIΔ)	0	I7, ♭II7, II7, ♭III7, IV7, ♭V7, V7 in Maj, ♭VI7, VI7, ♭VII7
1, 3, (no P5), ♭7	♭9, ♯9, ♯11, ♭13	0	♭II7, II7 in Min, III7, V7 (Maj or Min), VI7, VII7, V7, IV
1, 3, 5, ♭7	♭9, ♯9, ♯11, ♮13	0	I7, ♭II7, II7, III7, V7 in Major, VI7, VII7,
1, 3, 5, ♭7	♭9, 11, ♭13 (♭IIΔ)	11 (♭13)	V7 in Minor, VI7 (Major or Minor)
1, 3, (+5), ♭7	9, ♯11, (♭13)	0	II+7 in Major, V+7 in Major, V+7 in Melodic Minor
1, 4, 5, ♭7	9, 10, 13	0	All Dominant 7 sus4 Chords
1, 4, 5, ♭7	♭9, 10, ♭13 (♭II-)	♭13	All Dominant 7 sus4♭9 Chords
1, ♭3, 5, 7	9, 11, 13 (II-)	0	All Minor/Major Chords
1, ♭3, 5, 7	9, 11, ♭13 (II°)	♭13	All Minor/Major Chords
1, ♭3, 5, 6	9, 11, Δ7	0	All Minor 6th Chords
1, ♭3, 5, ♭7	9, 11, 13 (II-)	0	II-7, ♭III-7, IV-7, V-7, ♭VI-7, ♭VII-7 (I-7) (Dual Function II-7's)
1, ♭3, 5, ♭7	♭9, 11, ♭13 (♭IIΔ)	♭9	III-7 (I-7)
1, ♭3, 5, ♭7	9, 11, ♭13 (II°)	♭13	VI-7 (I-7)
1, ♭3, ♭5, ♭7	♭9, 11, ♭13 (♭IIΔ)	♭9	All Minor 7♭5 (ø) Chords
1, ♭3, ♭5, ♭7	♮9, 11, ♭13 (II°)	0	II-7♭5 in Major, III-7♭5, IV-7♭5, ♯IV-7♭5, V-7♭5, VI-7♭5
1, ♭3, ♭5, ♭7	♭9, 11, ♮13 (♭II+)	♭9	II-7♭5 in Minor
1, ♭3, ♭5, ♭♭7 (°7)	9, 11, ♭13, Δ7 (II°7)	0	All Diminished Triads or Diminished 7th Chords
1, 3, +5, 7	9, 11, 13 (II-)	11, ♮13	All Augmented Major 7th Chords
1, 3, +5, 7 (6)	9, ♯11, 13 (IIΔ)	♯13	All Augmented Major 7th Chords
1, 3, +5, 7	♯9, P5 (P12)	0	All Augmented Major 7th Chords

SUGGESTED CHORD SCALE APPLICATION BY HARMONIC FUNCTION

Tonic Major Chords

I major triad, I6, IΔ7 take IONIAN.

[Note: Most major chords in progressions preceeded by their V7, II-7 V7, substitute V7 or II-7 V7 can take IONIAN.]

Common Non-Tonic Major Chords

♭IIΔ7, ♭IIIΔ7, IVΔ7, ♭VIΔ7 and ♭VIIΔ7 take LYDIAN

(unless preceeded by its V7).

Augmented / Major Chords

I+ triad, I+Δ7 can take IONIAN / AUGMENTED or -3, -2.

All non-tonic augmented major chords take LYDIAN /AUG.

or -3, -2.

Dominant 7th Chords

1. I7 (V7/IV): MIXOLYDIAN, LYDIAN ♭7, 1/2, 1. (V7/IV altered pos.)
2. ♭II7 (SV7/I): LYDIAN ♭7

3a. II7 (V7/V) in major: LYDIAN ♭7, WHOLE TONE

b. II7 (V7/V) in minor: ALTERED (II+7), MIXO ♭9, ♭13 (II+7)

4. ♭III7 (SV7/II): LYDIAN ♭7
5. III7 (V7/VI): ALTERED (III+7)
6. IV7 (SV7/III): LYDIAN ♭7
7. ♭V7 (SV7/IV): LYDIAN ♭7 (SV7/IV altered pos.)

8a. V7 in major: MIXOLYDIAN, LYDIAN ♭7, ALTERED (V+7), 1/2, 1, WHOLE TONE (V+7)

b. V7 in minor: ALTERED (V+7), MIXO ♭9, ♭13 (V+7)

9. ♭VI7 (SV7/V): LYDIAN ♭7

10a. VI7 (V7/II) in major: MIXOLYDIAN, LYDIAN ♭7, 1/2, 1, ALTERED (VI+7), MIXO ♭9, ♭13 (VI+7)

b. VI7 (V7/II) in minor: ALTERED (VI+7), MIXO ♭9, ♭13 (VI+7)

11. ♭VII7 (SV7/VI): LYDIAN ♭7
12. VII7 (V7/III): ALTERED (VII+7), MIXO ♭9, ♭13 (VII+7)

Dominant 7th sus 4 (all): MIXOLYDIAN sus 4

Dominant 7th sus 4♭9 (all): MIXOLYDIAN sus 4 ♭9

Tonic Minor Chords

1. I-triad, I-Δ7: MELODIC MINOR or HARMONIC MINOR
2. I-6 (all): MELODIC MINOR
3. I-7: AEOLIAN (NATURAL MINOR)

[Note: I-7 can also take DORIAN or PHRYGIAN depending on harmonic context.]

Common Non-Tonic Minor Chords

1. II-7: DORIAN
2. III-7: PHRYGIAN
3. VI-7: AEOLIAN

Diatonic

4. ♭III-7: DORIAN
5. IV-7: DORIAN
6. V-7: DORIAN

Non-Diatonic

[Note: Dual function II-7th chords, i.e., ←(III-7/II-7)→ or ←(VI-7/II-7)→, can take DORIAN (melody permitting) but the other minor 7th chord scale works as well.]

Minor 7♭5 Chords (Half Diminished)

1. II-7♭5 in major: LOCRIAN ♮9
2. II-7♭5 in pure minor: LOCRIAN ♮13
3. II-7♭5 in non-tonic minor: LOCRIAN or LOCRIAN ♮9
4. III-7♭5: LOCRIAN or LOCRIAN ♮9
5. ♯IV-7♭5: LOCRIAN or LOCRIAN ♮9
6. VI-7♭5: LOCRIAN or LOCRIAN ♮9
7. VII-7♭5: LOCRIAN or LOCRIAN ♮9

[Note: All -7♭5 (ø) chords can take LOCRIAN.]

Diminished Triads or Diminished 7th Chords (all): 1, 1/2

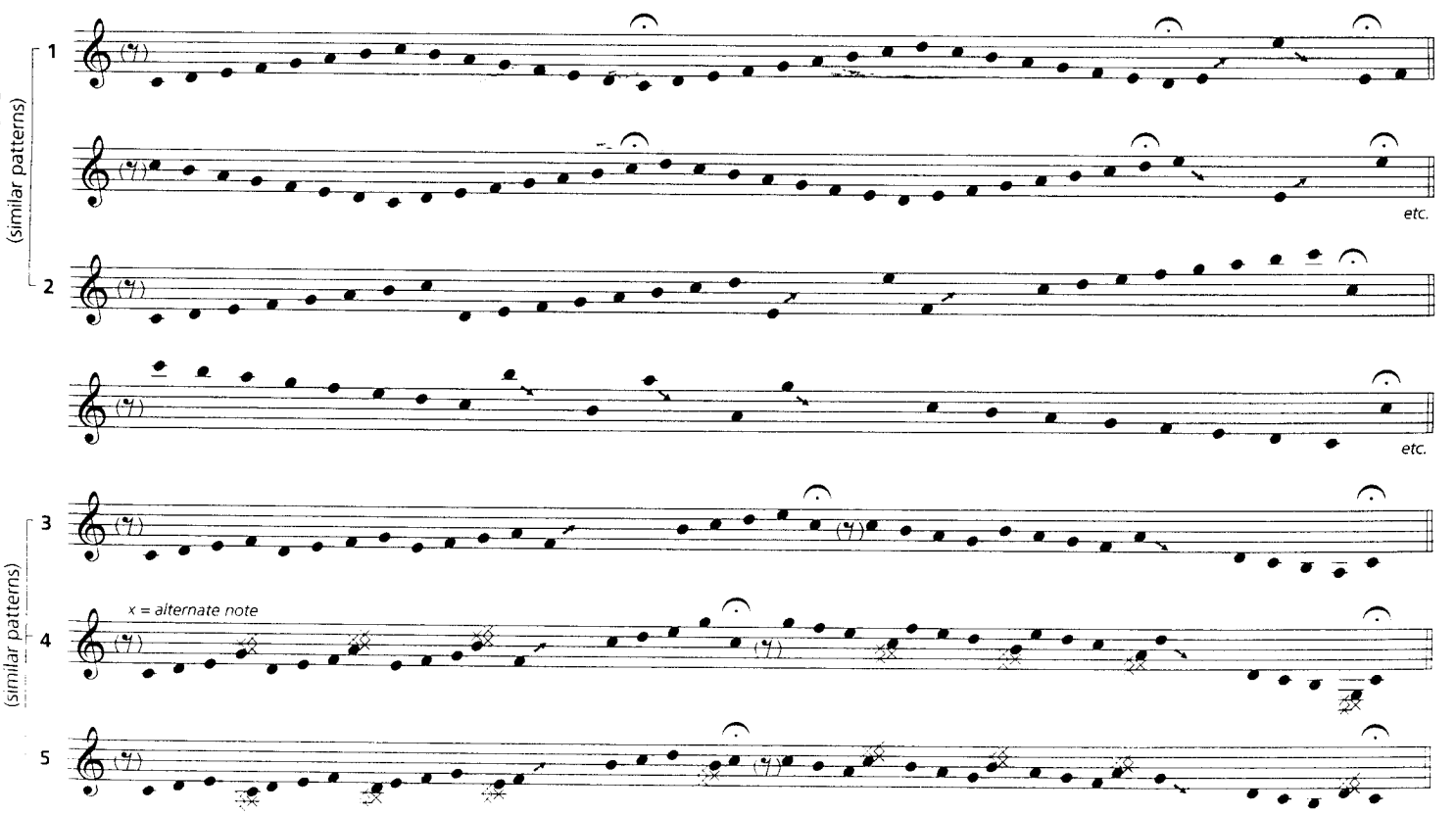
Chord Scale Practice - Exercise #1: Scale Patterns

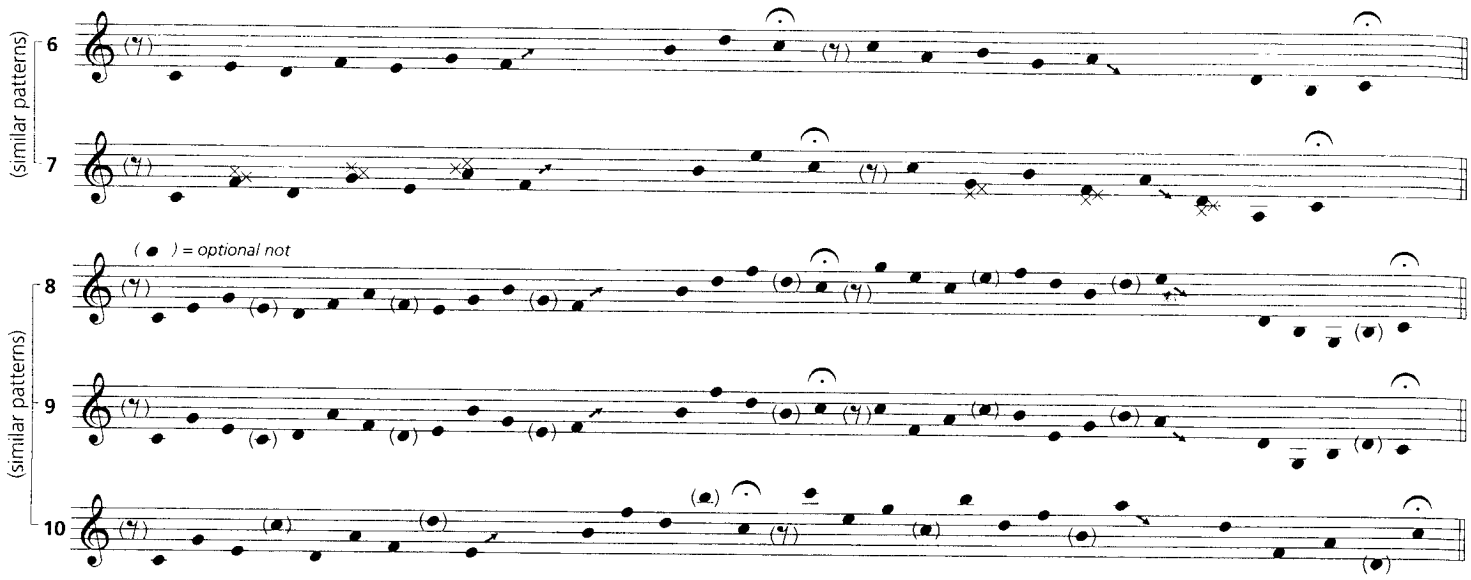
Before using a chord scale to improvise in the context of a chord progression, it is important to really know the scale inside out. As part of the preparation, practice the scale mechanically using various scale patterns.

[Note: Concentrate on major scales in all keys first, since it is relatively easy to learn other scale forms once you have strongly established the major scale as a point of reference. After major scales, practice melodic minor (ascending version) then move on to harmonic minor and symmetrical scales, such as the whole tone scale, the half step/whole step scale, etc. The major scale produces 7 modes (Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian and Locrian). The melodic minor scale produces 5 more conventional chord scales (melodic minor, Lydian/augmented, Lydian ♭7, Locrian ♮9, and altered dominant). The harmonic minor scale produces 4 chord scales (harmonic minor, Locrian ♮13, Ionian/augmented, and Mixolydian ♭9, ♭13). These 3 scale forms - major, melodic minor (ascending) and harmonic minor - are extremely important to know in all keys since they are the "parent" scales for so many other scale forms.]

Consider these suggestions when practicing the following scale-pattern exercises:

1. Practice at various tempos
2. Use even and swing 8th notes
3. Use triplets
4. Play exercise ascending/descending
5. Play exercise descending/ascending
6. Begin exercise on every scale degree
7. Begin exercise on the downbeat
8. Begin exercise on the upbeat
9. Use various articulations (e.g. staccato, legato, and various combinations)
10. Use the entire range (or a substantial range) of the instrument with each exercise
11. Practice the same one or two scale patterns for several days before changing to others
12. Practice each (selected) scale pattern in 6 keys on one day, the other 6 keys on the next day, etc.



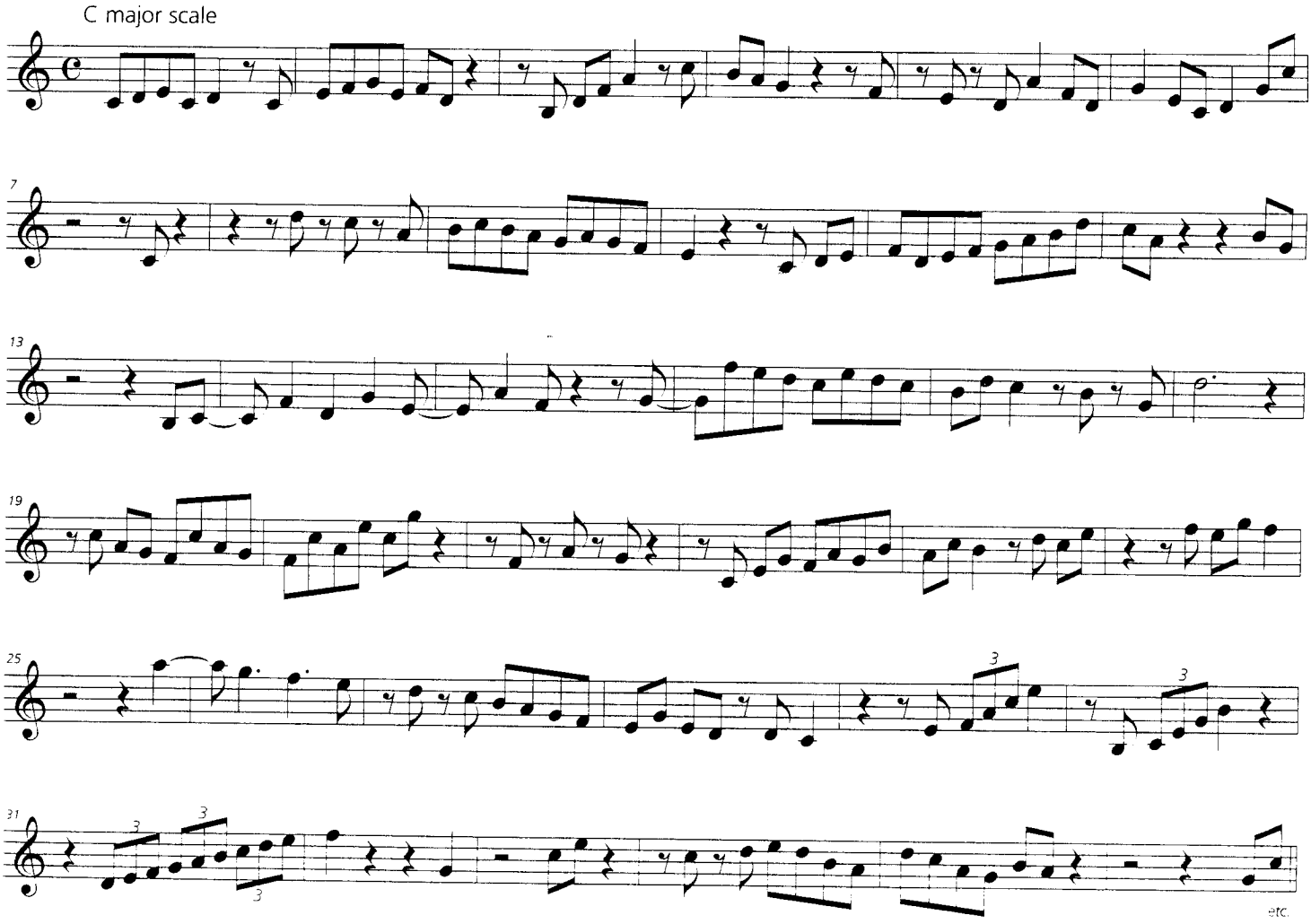


Chord Scale Practice - Exercise #2: "Improvising on Individual Scales"

After practicing a chord scale mechanically using scale patterns, improvise on the scale (one scale at a time, unlimited duration, modal-style) using the play/rest approach. Incorporate melodic shapes and ideas learned from the scale-pattern exercises. Use [diatonic] scale notes only for now, i.e. no non-diatonic notes. Practice improvising at various tempos, out of tempo ("free") but in the scale, with accompaniment and without accompaniment.

Example I:65R

C major scale



Chord Scale Practice - Exercise #3: "Improvising Over Chord Changes"

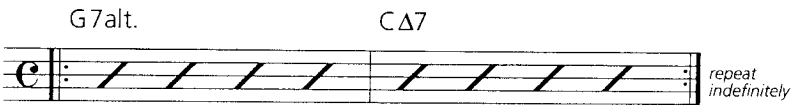
Select 2 different chords and assign appropriate but contrasting chord scales, as in the following examples:

1. G7 altered (A♭ melodic minor), CΔ7 Ionian (C major scale)
2. G7 altered, C-6 melodic minor
3. D-7 Dorian, G7 altered
4. Dø Locrian, G7 (1/2,1)

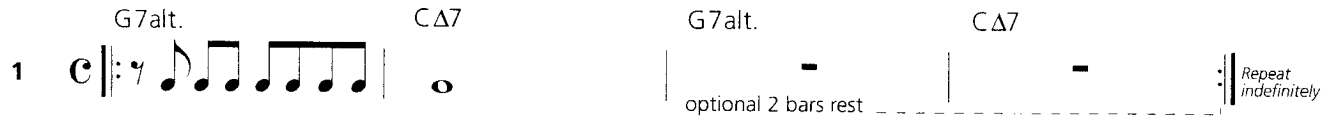
Practice improvising on each chord of the 2-chord pattern individually, with unlimited duration, modal-style, (with and without using a selected rhythm - see below) in order to become familiar with the notes and sound of each chord scale.

Then assign an equal duration to each chord, e.g. 8 beats (2 bars each) or 4 beats (1 bar each) in 4/4 time. Use repeat signs to indicate indefinite repeat of progression.

Example I:66



There is little contest to being melodically active and accurate *before* or *after* a chord has changed. The real challenge is to play actively and accurately *during* a chord change. Therefore, choosing your own melody notes, use the following rhythms to insure that the improvising will be melodically and rhythmically active (to varying degrees) *while* the chords are changing.



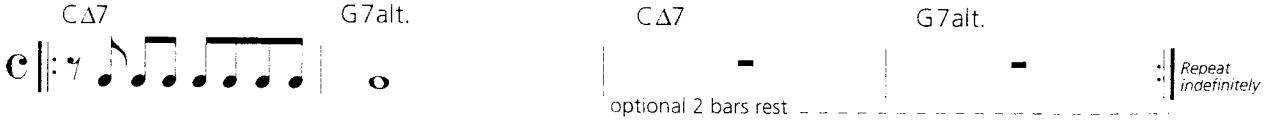
Rhythm of #1 is displaced by 1 full beat; use same chords:

Rhythm of #1 is displaced by 2 full beats; same chords:

Rhythm of #1 is displaced by 3 full beats; same chords:

Now reverse the order of the chords and repeat the above rhythms.

Example I:67



Variations:

1. Use simpler, easier rhythms, e.g.:

2. Practice without 2-bar rest at end.
3. Practice at fast tempos.
4. Change melodic curve each time.
5. End on a different pitch each time.
6. Apply rhythms 1-4 separately or in sequence, e.g. rhythm #1 for X repeats, to rhythm #2 for X repeats, to rhythm #3, etc.
7. Apply rhythms separately or in sequence to a tune progression, beginning in the 1st or 2nd bar of the progression. [Note: Progressions where the general chord duration is 4 or 8 beats (1 or 2 bars) are easiest to work with.]

Example: Daily Practice Schedule - Chord Scales/Melodic Accuracy

1. 40 (20) minutes on scale patterns played mechanically.
2. 20 (10) minutes on improvising with individual scales.
3. 40 (20) minutes on improvising over chord changes using predetermined rhythms (apply to chord patterns and tune progressions).
4. 20 (10) minutes on the spirit and mood of the music.

Stretching The Time

Stretching the time while soloing means to intentionally contract or expand the note values slightly [i.e. to rush (contract) or drag (expand) the tempo]. *The objective is to clearly define a steady alternate tempo to the one being played.* This is done as a special effect to create interest in the solo. There are, then, 3 possible ways or places to play the time:

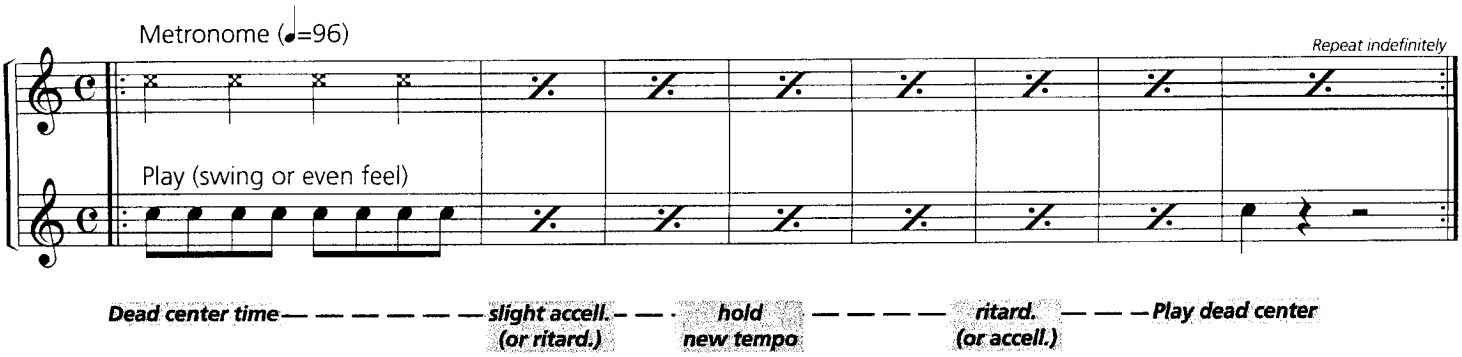
1. dead center (consistent with the actual tempo),
2. ahead of center (slightly rushing the tempo or contracting the note values),
3. behind the center (slightly dragging the tempo, or expanding the note values).

Stretching The Time - Exercises #1 and 2

Set the metronome at a medium slow tempo, e.g. ♩ = 96. Begin by playing the exercises with dead center time for several (4-8) beats. Then increase (or decrease) your tempo slightly but noticeably and hold it steady for several beats against the metronome. Finally, return to dead center for the end. Repeat several times. Vary the tempos on the metronome. Use swing and even feel.

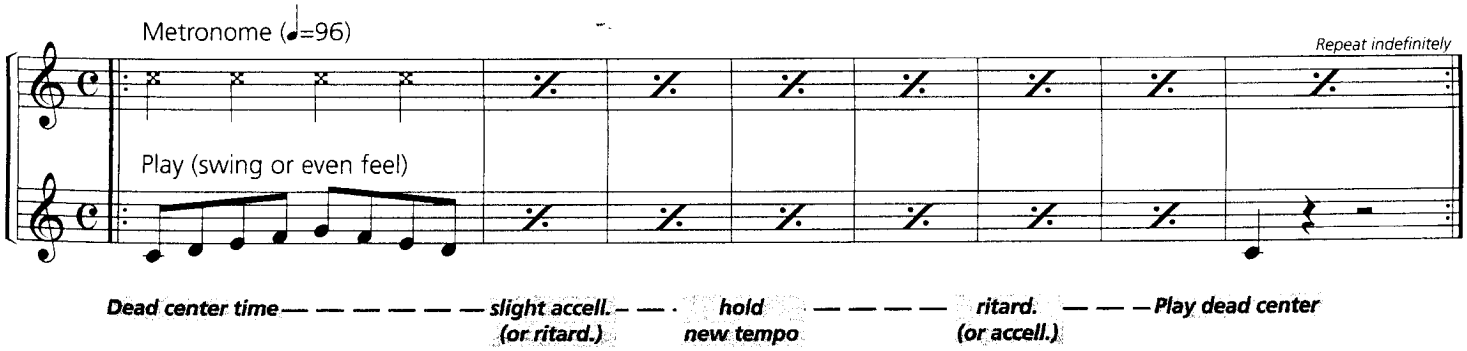
EXERCISE 1: Using a single pitch:

Example II:1R



EXERCISE 2: Using a scale or scale pattern:

Example II:2R



Stretching The Time - Exercises #3 - 9

[Note: Use consecutive 8th-note or quarter note values to clearly identify the *altered* time centers.]

Using the play/rest approach and varying the phrase lengths, improvise at a medium tempo on a single chord or familiar chord progression with a comping tape or metronome as follows:

Throughout the solo:

EXERCISE 3: Play each phrase from beginning to end with dead center time. Focus on tempo accuracy and clearly defining the tempo with the rhythms played.

EXERCISE 4: Begin each phrase dead center for several beats, then to ahead (or behind) center for several beats or more, and back to dead center for the ending.

EXERCISE 5: Begin each phrase with dead center time for several beats, and end each phrase ahead of the center (i.e. slightly faster) for several beats or more.

EXERCISE 6: Begin each phrase ahead of center for several beats or more, and end each phrase with dead center time for several beats.

EXERCISE 7: Begin each phrase with dead center time for several beats, and end each phrase behind the center (i.e. slightly slower) for several beats or more.

EXERCISE 8: Begin each phrase behind the center for several beats or more, and end each phrase with dead center time for several beats.

EXERCISE 9: Play consecutive phrases with different time centers, e.g. play 2 bars dead center, rest, play 2 bars ahead of center, rest, play 3 bars behind center, rest, etc.

After making some progress at a medium tempo, practice the above exercises at faster and slower tempos and with different time signatures.

[Note: When playing ahead or behind the center, beware of rushing or dragging the tempo to the point of losing your place in the music. If this should occur, however, simply stop playing, listen for where the tempo is and where you are in the tune's harmony, and begin playing again. Also beware of playing rhythms which have a recognizable relationship to the actual tempo.]

Time Awareness - Exercise #1

Two or more players (any instrumentation) improvise simultaneously on a single chord or a fimiliar chord progression *without accompaniment.* One player creates variations in the tempo by *gradually* speeding up or slowing down throughout the solo. The other player(s) must follow the tempo changes as closely as possible. The player controlling the tempo should play consecutive quarter notes (or 8th notes) for several (2-4) measures to execute the tempo change, which should be achieved gradually in order to give the other player(s) an obvious lead to follow.

At a certain point in each accelerando or ritardando, the player controlling the tempo should hold the tempo steady for a few measures to clearly establish the new tempo, and then begin to change it again in the manner described above.

Both situations - controlling the tempo and following the tempo changes - present the challenge of soloing while dividing your attention between yourself and another player or players. This ability is essential for musical communication, i.e., you must be able to hear (and follow) not only what you are playing, but what is being played around you as well.

Time Awareness - Exercise #2

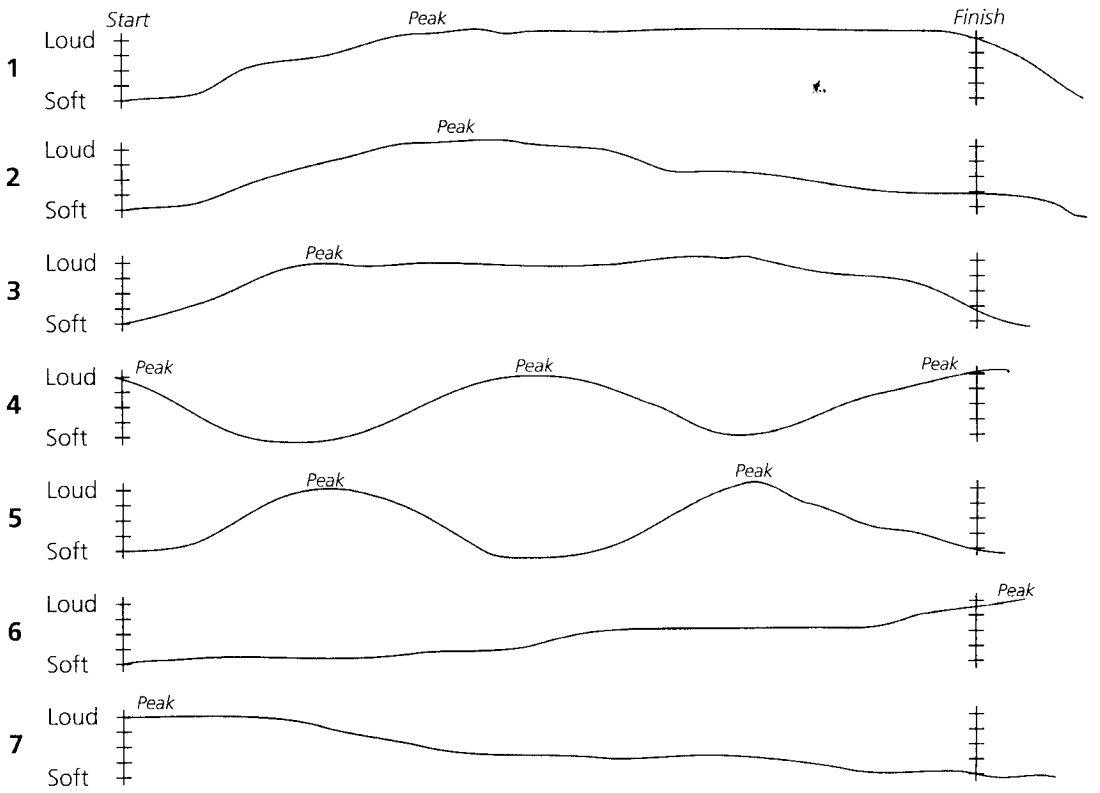
Two or more players (any instrumentation) improvise simultaneously on a single chord or a familiar chord progression. One player holds the tempo steady playing dead center time while the other player(s) fluctuate the time from dead center to ahead and behind the center throughout the solo. This can be practiced with or without metronome accompaniment.

Example: Daily Practice Schedule - Time Awareness

1. 20 (10) minutes on stretching the time, exercises #1 and 2.
2. 40 (20) minutes on stretching the time; choose from exercises #3-9.
3. 40 (20) minutes on time awareness, exercises #1 and 2.
4. 20 (10) minutes on the spirit and mood of the music.

Dynamics - Volume Contrast

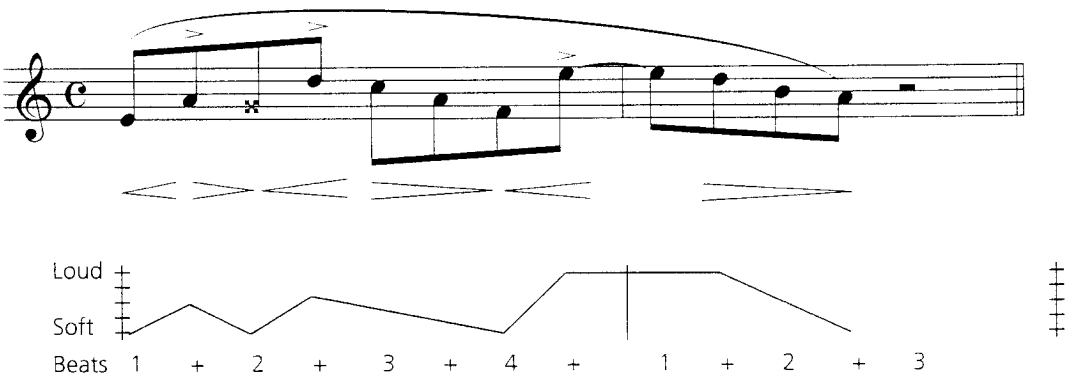
Dynamics can create powerful and dramatic effects in an improvised solo, provided they change enough to be noticed! Following are examples of conventional dynamic (or loud/soft) curves for solos spanning one or more choruses (32 bars or more):



In each of these dynamic curves there is [some] contrast, which will help to create and hold interest in the solo. But not every solo *must* contain volume changes - frequent, extreme, or otherwise. Sometimes it is effective to play loudly (or softly) throughout an entire solo. And certainly, entire sections of a solo can be the same general volume level, provided the music is interesting or contrasting in other ways, e.g. the pacing, phrase lengths, rhythmic density, time-feel, motif development, etc. Contrasting dynamics will always enhance the musicality and sensitivity of a solo, however, and demonstrate the maturity of the player.

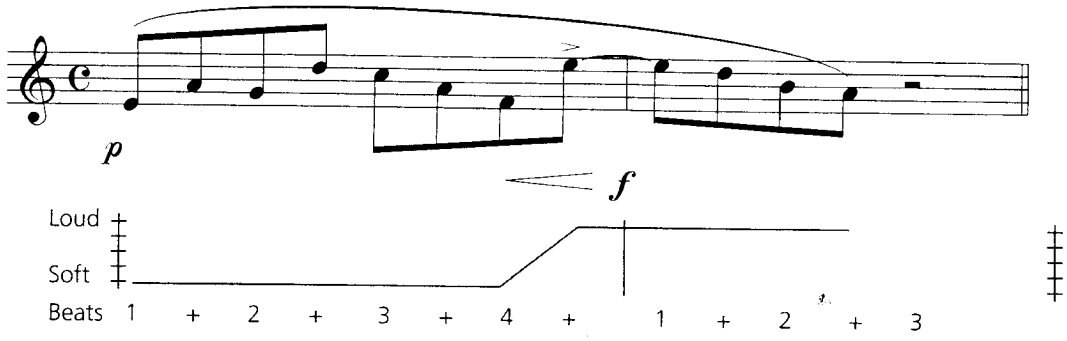
Dynamic curves similar to those illustrated above can also be found in individual phrases spanning one or more measures. Dynamics are created "naturally" by the rhythm and melodic curve of the melody line. They are executed in the form of accents, articulations, "ghost" notes (half-played notes), mini-crescendos and diminuendos. The *general* rule is: the higher the pitch, the greater the accent and/or volume.

Example II:3R



The above example could also be played with the following "imposed" dynamics, which de-emphasize some of the natural accents and volume changes:

Example II:4R

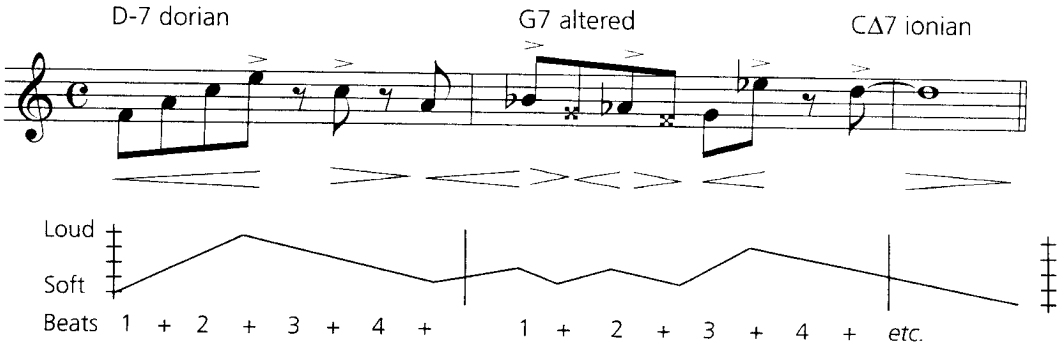


In both examples above, the dynamics contribute greatly to the spirit, character and forward motion of the music, *especially when their execution is exaggerated in the performance.*

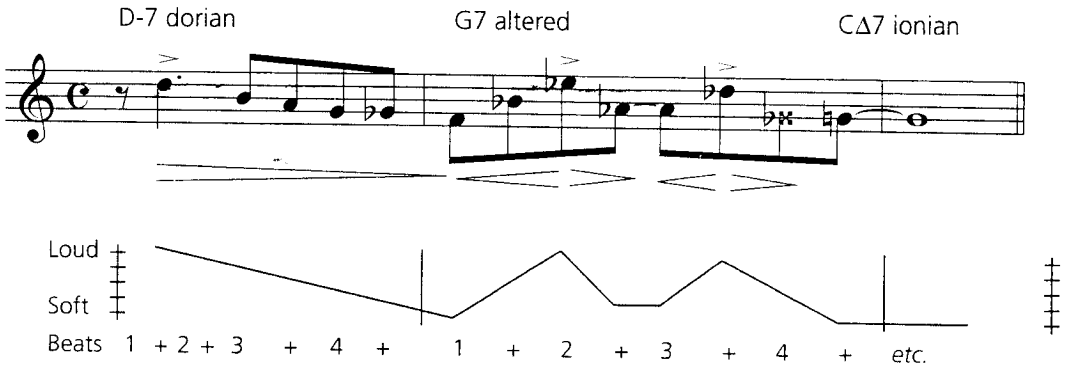
Dynamics - Exercise #1: "Natural Dynamics"

Select a single chord or chord pattern and assign appropriate chord scales. Write out several 2-bar or 3-bar melodic phrases on the chord(s), applying (written) natural dynamics to the melody line. Examine the dynamic curve of each phrase for contrast. Practice playing the phrases at various tempos with metronome or comping tape accompaniment. In the performance, *exaggerate* the execution of all natural dynamics, including accents, ghost notes, ascending lines (crescendos) and descending lines (decrescendos).

Example II:5R



Example II:6R



Dynamics - Exercises #2-11: "Natural and General Dynamics"

Select a harmonic setting and mode of accompaniment. Using the play/rest approach and varying the phrase lengths, improvise in tempo controlling the dynamics of each phrase throughout the solo as follows:

EXERCISE 2: Exaggerate the natural dynamics of each melodic phrase using accents, ghost notes, mini-crescendos and decrescendos, etc. (Rest between phrases.)

EXERCISE 3: Begin each phrase playing softly for several (4-8) beats, crescendo, and end each phrase playing loudly for several beats or more.

EXERCISE 4: Begin each phrase playing loudly for several (4-8) beats, decrescendo, and end each phrase playing softly for several beats or more.

EXERCISE 5: Begin each phrase softly, get louder, end softly.

EXERCISE 6: Begin each phrase loudly, get softer, end loudly.

EXERCISE 7: Play each phrase softly from beginning to end.

EXERCISE 8: Play each phrase loudly from beginning to end.

EXERCISE 9: Alternate between soft and loud phrases, e.g. one soft, one loud, throughout the solo.

EXERCISE 10: Alternate between soft and loud sections (8-16 bars) and soft and loud choruses throughout the solo (e.g. one soft, one loud).

EXERCISE 11: Focus on the general idea of creating contrast and interest in the solo by exaggerating the natural dynamics of melodic phrases as well as changing the general volume levels.

Dynamic Awareness - Exercise #1

Two or more players (any instrumentation) improvise simultaneously in tempo in a selected harmonic setting, with or without accompaniment. One player creates variations in the general volume level by gradually (for one or more bars) increasing or decreasing the volume throughout the solo. The other player(s) must follow the volume changes as closely as possible.

At a certain point in each crescendo or decrescendo, the player controlling the dynamics should hold the volume level steady for a few measures to clearly establish the new level, and then begin to change it again in the manner described above.

Dynamic Awareness - Exercise #2

Two players (any instrumentation) improvise simultaneously in tempo in a selected harmonic setting, with or without accompaniment. One player solos at a medium volume while the other player fluctuates the volume level from medium to soft and loud, exaggerating the natural dynamics as well throughout the solo.

Example: Daily Practice Schedule - Dynamics

1. 40 (20) minutes on dynamics, exercise #1, writing and playing examples of natural dynamics.
2. 30 (15) minutes on dynamics, choosing from exercises #2-8.
3. 30 (15) minutes on dynamics, exercises #9, 10, and 11.
4. 40 (20) minutes on dynamic awareness, exercises #1 and 2.
5. 20 (10) minutes on the spirit and mood of the music.

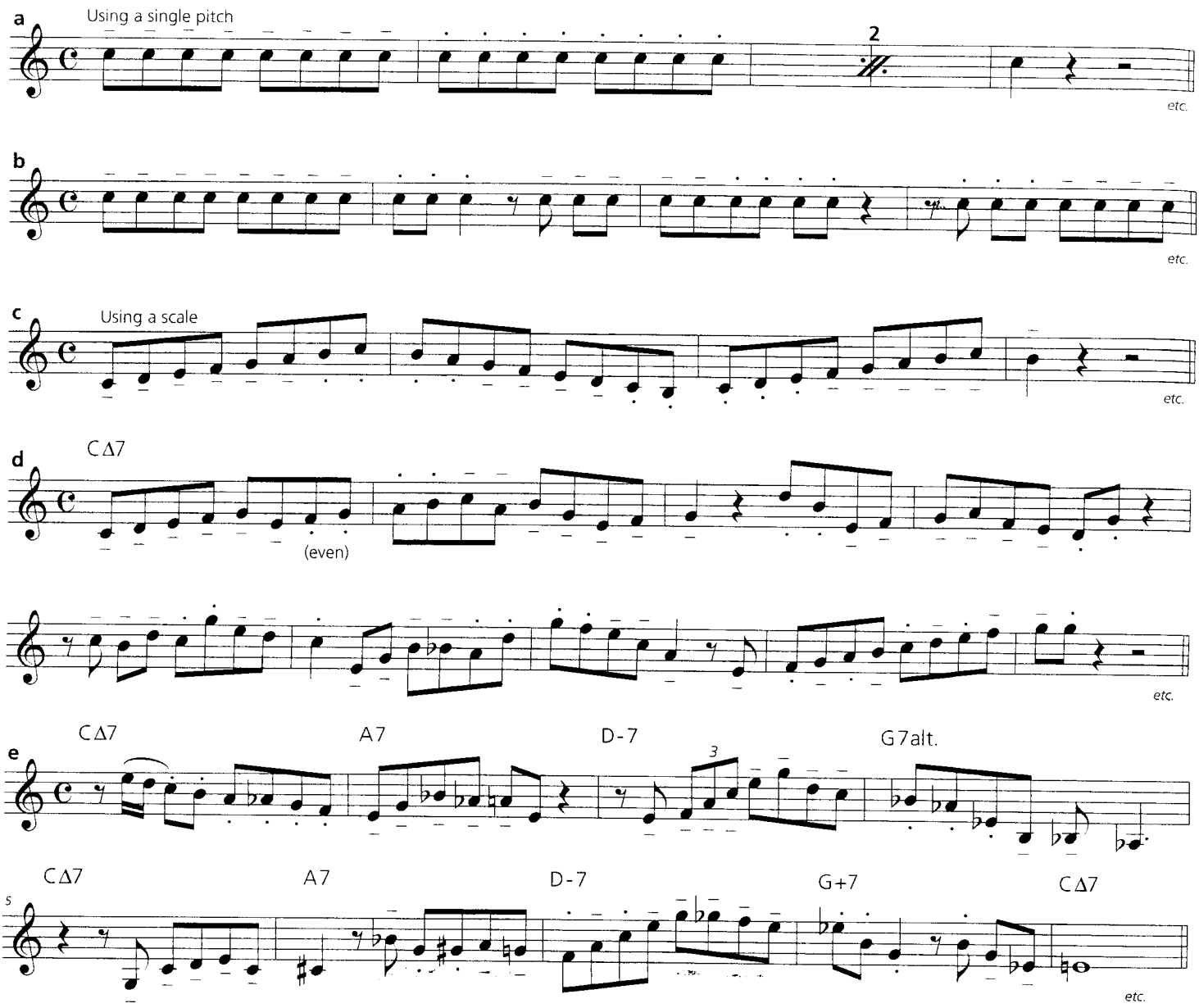
Articulation

Articulation refers [here] to the type of attack given to a note (e.g. staccato or legato), which in turn determines its played length or value. Staccato articulation means (for our purposes) to play the note with a somewhat sharp attack and for approximately half its written value or duration. For example, a staccato quarter note would be played like an accented 8th note. Staccato articulation is generally applied only to quarter notes and notes of lesser duration (8th notes, triplets, and 16th notes), and at any volume level. Consecutive staccato notes are played with an audible separation between them.

Legato articulation means (for our purposes) to play the note with an audible attack (enough to give definition to its rhythmic placement, but not necessarily a sharp attack), holding the note for its full written value or duration. For example, a legato quarter note would receive an audible attack and be held for one full beat. Legato articulation can be applied to any note value at any volume level. Consecutive legato notes are played with no separation between them.

Changing and exaggerating the articulation during a melodic phrase gives the music character, demonstrating the instrumental control or proficiency of the player. Consecutive 8th notes or triplets are more often played with legato articulation than staccato, however, staccato works well in this context as a special effect, particularly when applied to consecutive *even* 8th notes while the accompaniment plays with a *swing* feel. [Note: Drummers execute legato in solos by playing cymbal or *concerted* cymbal and drum attacks, and staccato by playing pressed drum attacks only, i. e. *no* cymbals.]

Example II:7a-eR



Articulation - Exercises #1-6

Select a harmonic setting and a mode of accompaniment. Using the play/rest approach, improvise in tempo playing predominantly 8th notes (with swing or even feel) and triplets. Exaggerate the types of articulation indicated in the following exercises throughout the solo.

[Note: The exercises below can be played using a single note (with rhythmic variation only) as a warm-up before improvising on chords.]

EXERCISE 1: Each phrase uses predominantly legato articulation.

EXERCISE 2: Each phrase uses predominantly staccato articulation.

EXERCISE 3: Begin each phrase with legato articulation for several beats, and end using staccato articulation for several beats or more.

EXERCISE 4: Begin each phrase with staccato articulation for several beats, and end using legato articulation for several beats or more.

EXERCISE 5: Begin each phrase with legato articulation for a few beats, then change to staccato for a few beats, and return to legato articulation for the ending.

EXERCISE 6: Focus on the general idea of changing articulations between legato and staccato throughout the solo.

Example: Daily Practice Schedule - Articulation

1. 20 (10) minutes on articulation, exercises #1 and 2.
2. 20 (10) minutes on articulation, exercises #3 and 4.
3. 20 (10) minutes on articulation, exercises #5 and 6.
4. 20 (10) minutes on the spirit and mood of the music.

Scale Patterns

Scale patterns are groups of several scale notes arranged in a certain order which can be practiced on chords and eventually used in an improvised solo, e.g. as "send-off" ideas to begin a melodic phrase, etc.

Following are examples of scale patterns in 4-note groups, incorporating the tonic triad of the scale plus one additional note.

Scale patterns using the tonic triad (1,3,5) plus the 2nd of the scale:

1 2 3 5	3 2 1 5
1 5 2 3	3 5 2 1
1 5 3 2	3 5 1 2
2 1 5 3	5 3 2 1
2 3 1 5	5 3 1 2
2 5 3 1	5 1 2 3

Scale patterns using the tonic triad (1,3,5) plus the 4th of the scale:

1 3 4 5	4 5 3 1
1 5 4 3	4 1 3 5
1 4 3 5	4 3 1 5
3 4 5 1	5 4 3 1
3 1 4 5	5 1 4 3
3 5 1 4	5 1 3 4

Scale patterns using the tonic triad (1,3,5) plus the 6th of the scale:

1 3 5 6	5 3 1 6
1 6 5 3	5 6 1 3
1 5 3 6	5 1 3 6
3 6 5 1	6 5 3 1
3 1 6 5	6 1 3 5
3 5 1 6	6 5 1 3

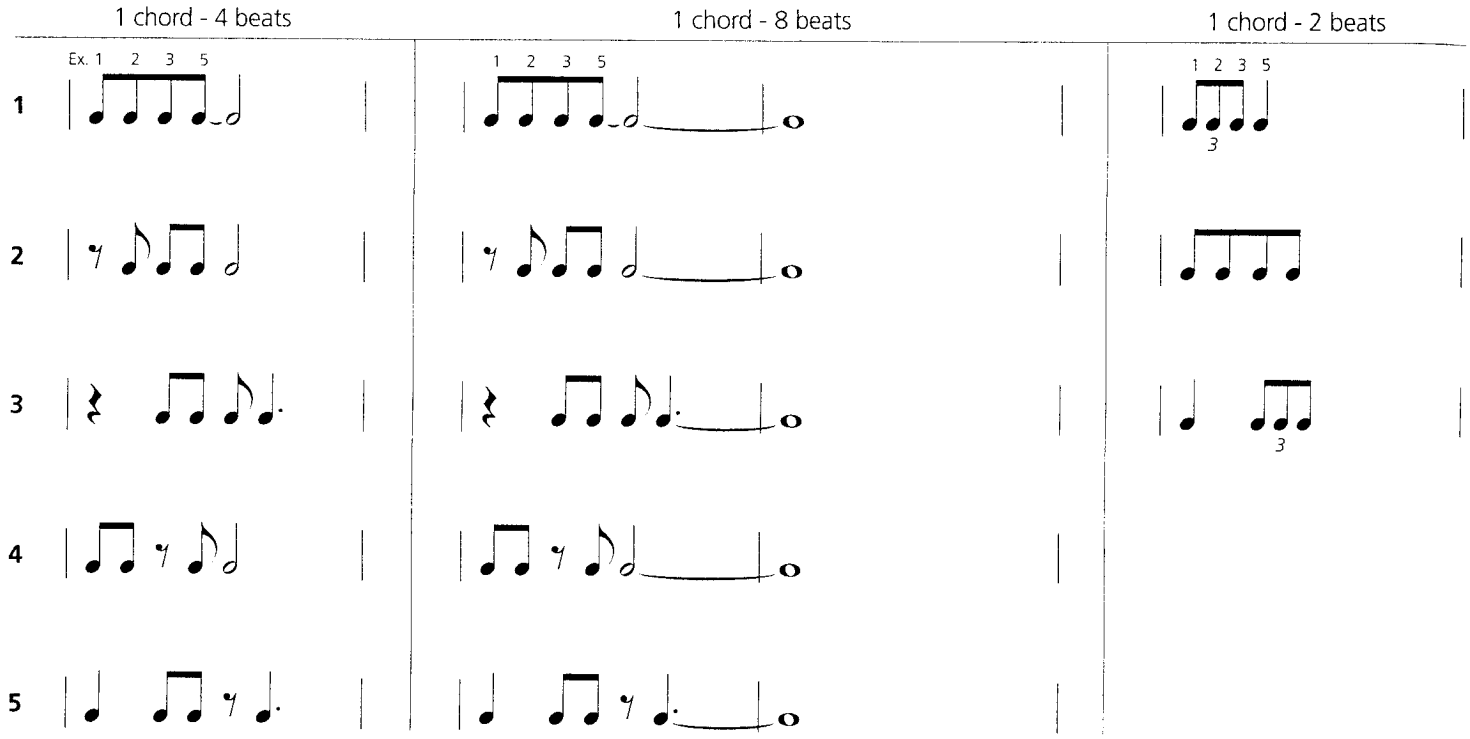
Scale patterns using the tonic triad (1,3,5) plus the 7th of the scale:

1 3 5 7	5 3 1 7
1 5 3 7	5 1 3 7
1 7 5 3	5 7 1 3
3 5 7 1	7 5 3 1
3 7 5 1	7 1 3 5
3 1 7 5	7 3 5 1

[Note: Some scale patterns may be inappropriate on certain chord types. For example, the scale pattern 1 5 3 4 *by itself* does not work well on major chords because the last note of the pattern (4) is an unresolved non-harmonic tone on the chord. Likewise, the scale pattern 3 5 4 1 on a major chord leaves the non-harmonic tone (4) unresolved. Therefore, scale patterns should, *for now,* comply with the rules of resolving non-harmonic tones in the melody.]

The altered dominant chord scale has two 2nd degrees (♭2 and #2) and two possible 5th degrees (♭5 and #5). Therefore, when a scale pattern includes a 2nd and/or a 5th, simply select one of the two versions available.

Scale patterns can be practiced or applied with any appropriate rhythm or rhythm pattern. The following rhythms are suitable for 4-note scale patterns:

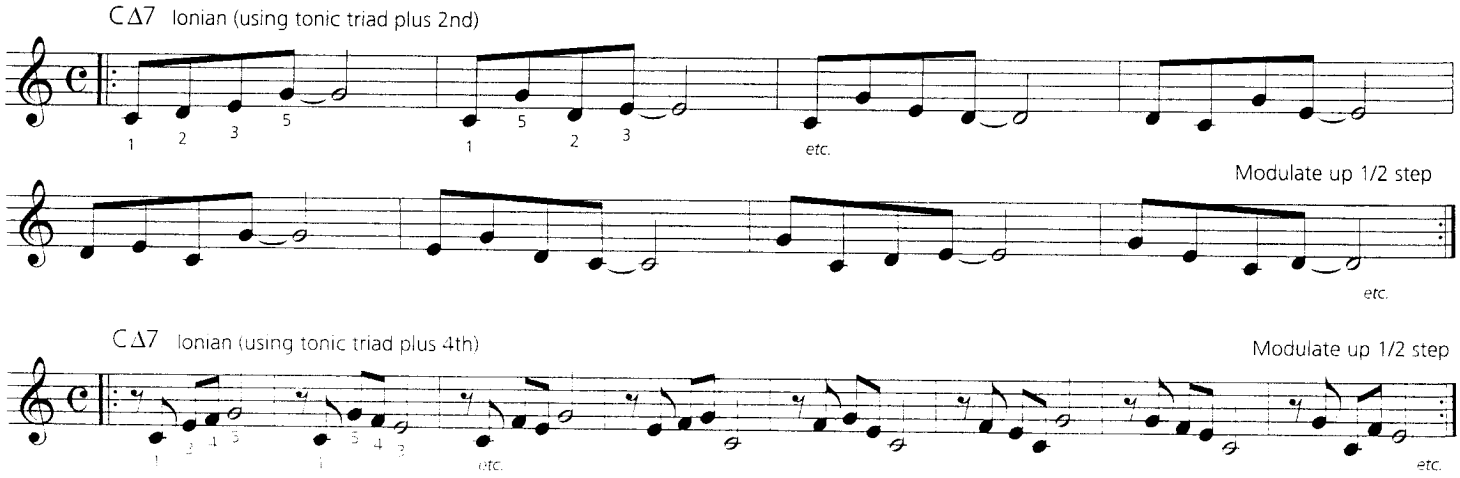


[Note: Simpler and/or variable (improvised) rhythms may also be used, e.g. II ♩ ♩ ♩ ♩ II, etc.]

Scale Patterns - Exercise #1

On a single chord and chord scale, play several (8-10) different scale patterns in succession but using the same 4 notes (e.g. tonic triad plus 2nd) with the same or different rhythmic patterns. Practice in tempo, with and without accompaniment. Modulate up or down by 1/2 steps, repeating the exercise in each key. Then, using the same chord type and chord scale, choose different notes (e.g. tonic triad plus 4th) and repeat the entire exercise.

Example II:8



Scale Patterns - Exercise #2

Arrange several chords of the same type (e.g. all minor 7 chords) in a progression. Assign equal or varied durations for each chord, balancing the harmonic rhythm. Select an appropriate chord scale (e.g. Dorian for minor 7th chords). Play the same scale pattern (e.g. 3 1 5 4) using the same or different rhythmic patterns on *each* chord of the progression. Repeat the exercise 2 or 3 times in tempo. Then use a different scale pattern (e.g. 5 4 3 1) and repeat the exercise several more times. Change to a different chord type (or leave the chord type the same but use another appropriate chord scale) and repeat the exercise.

Example II:9

(Using Dorian scale with 3 1 5 4 scale pattern)

C-7 E♭-7 D♭-7 B-7

A-7 B♭-7 A♭-7 G-7

(Using Dorian scale with 5 4 3 1 scale patterns)

C-7 E♭-7 D♭-7 B-7

A-7 B♭-7 A♭-7 G-7

(Using Phrygian scale with 2 3 1 5 scale pattern)

C-7 E♭-7 C♯-7 B-7

A-7 B♭-7 G♯-7 G-7

etc.

Scale Patterns - Exercise #3

Apply instructions from exercise #2 above to *different* chord types in a chord pattern (e.g. II-7, V7, IΔ7) or a tune progression.

Example II:10

(Using 1 5 3 2 scale pattern)

Dø (Locrian ♮9) G7alt. CΔ7 (Ionian)

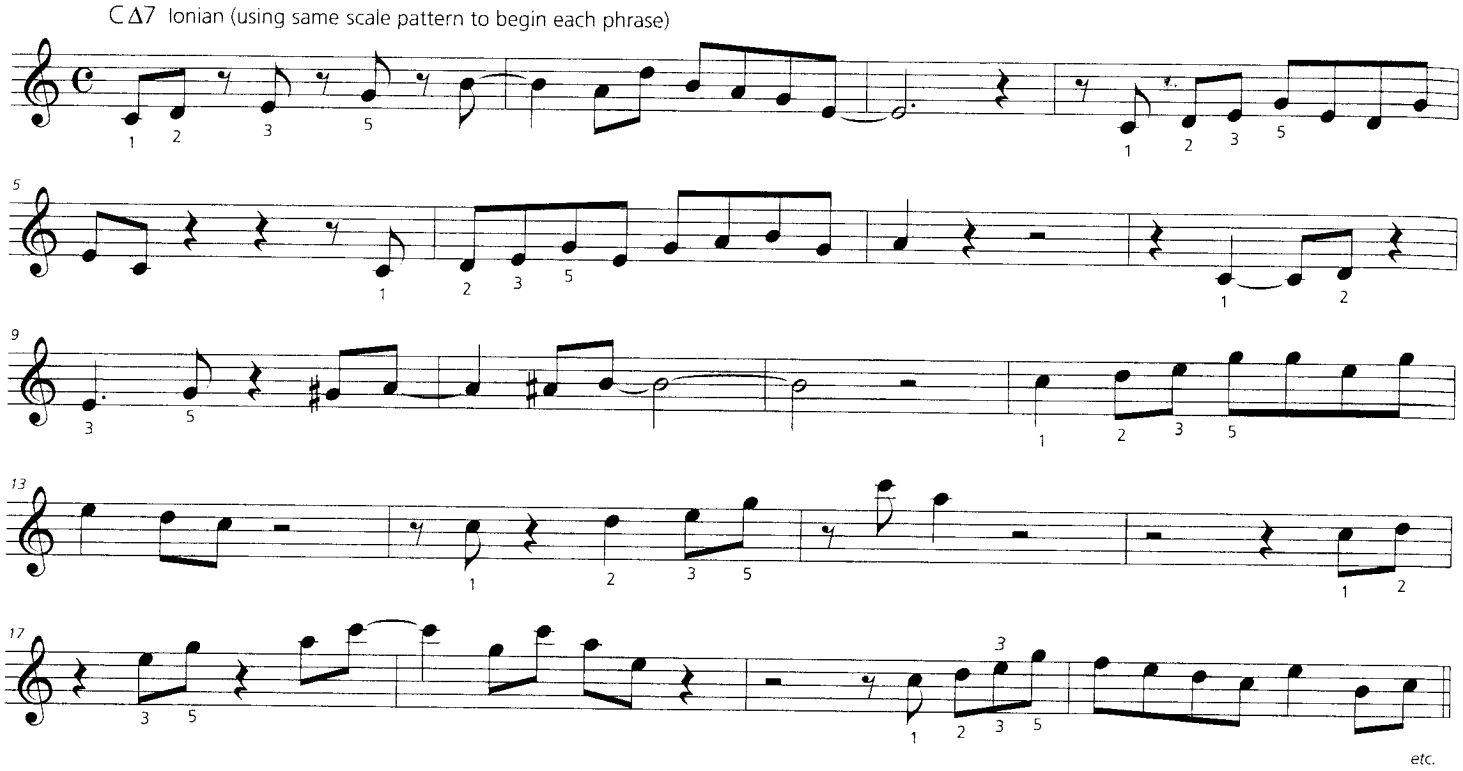
Cø (Locrian ♮9) F7alt. B♭Δ7 (Ionian)

etc.

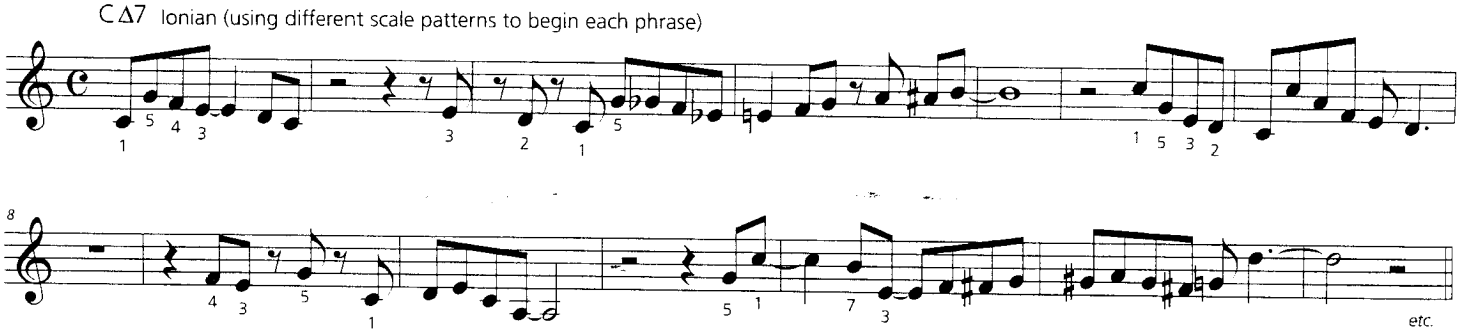
Scale Patterns - Exercise #4 (*Using Scale Patterns as Send-Offs*)

Using the play/rest approach, improvise on a single chord, chord pattern or a familiar tune progression, beginning each phrase with the same (or different) scale pattern. End each phrase with improvising. Practice in tempo, with and without accompaniment. Vary the phrase lengths.

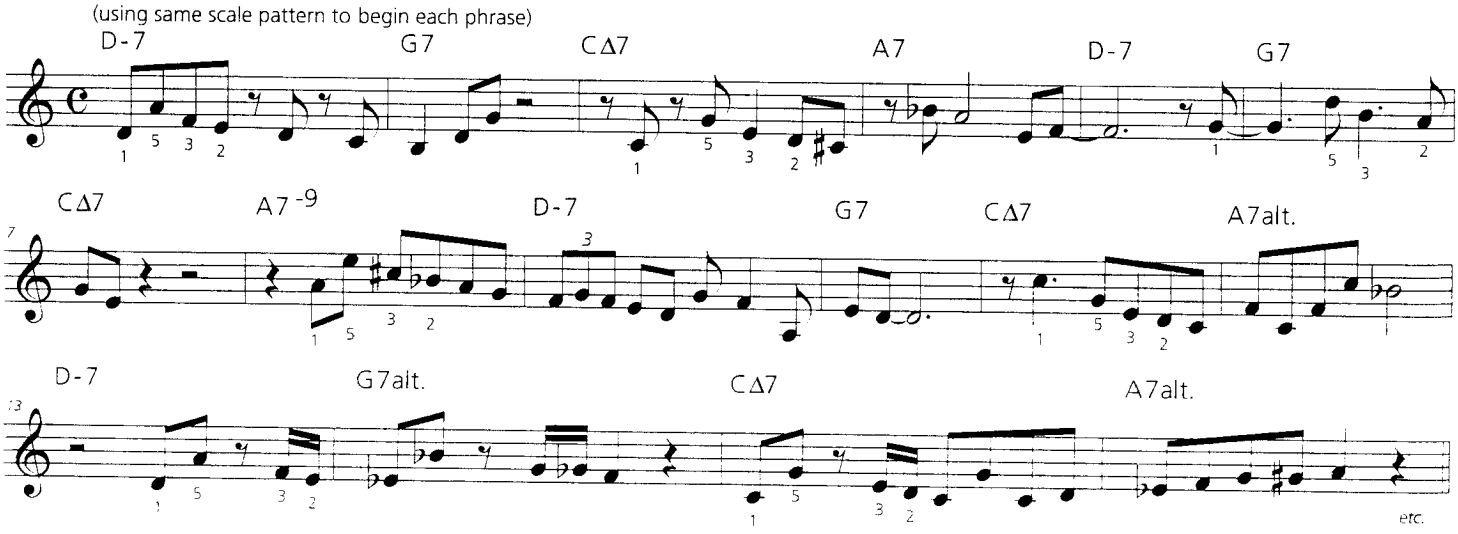
Example II:11R



Example II:12R

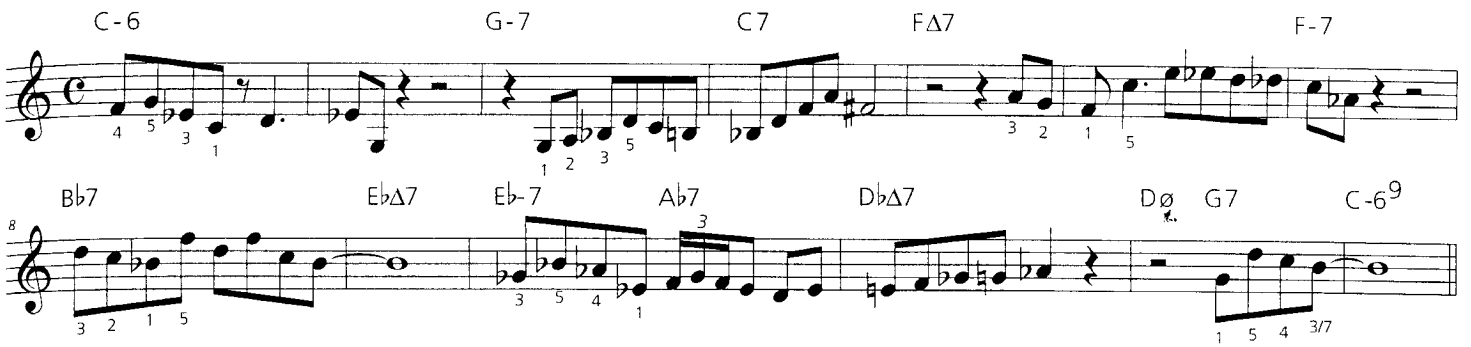


Example II:13R



Example II:14R

(using different scale patterns to begin each phrase)



Example: Daily Practice Schedule - Scale Patterns

1. 60 (30) minutes on exercises #1 and 2.
2. 40 (20) minutes on exercises #3 and 4.
3. 20 (10) minutes on the spirit and mood of the music.

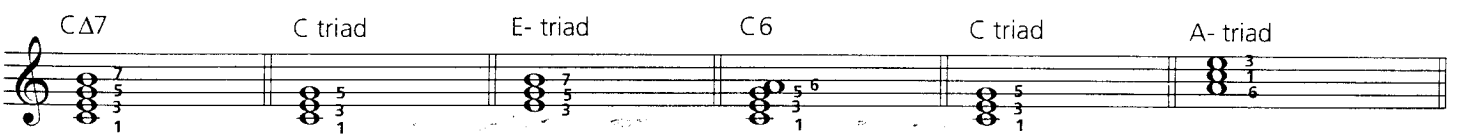
Lower Structure Triads

A lower structure triad (LST) is any major, minor, diminished or augmented triad comprised of chord tones only from the chord or chord scale, i.e. using the root, 3rd, 5th and 6th (on 6th chords) or 7th (on 7th chords).

With conventional 4-part 7th chords, the lower structure triads are: [root, 3rd, 5th], and [3rd, 5th, 7th]. On 4-part 6th chords, the lower structure triads are: [root, 3rd, 5th] and [6th, root, 3rd].

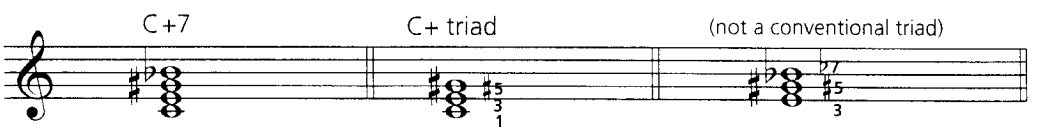
Example: For CΔ7, the lower structure triads are C major [1,3,5] and E minor [3,5,7]. For C6, the lower structure triads are C major [1,3,5] and A minor [6,1,3].

Example II:15



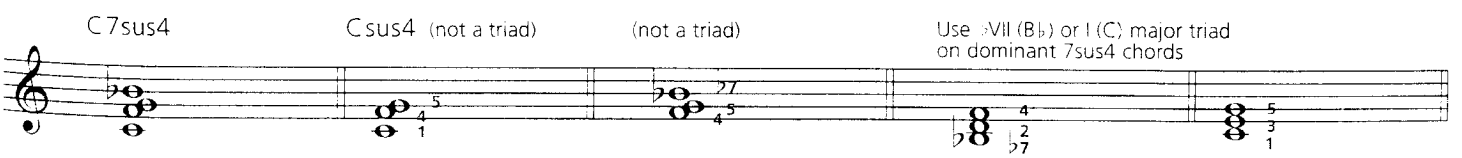
The augmented dominant 7th chord has only one lower structure triad - the I augmented triad (root, Major 3rd, Aug 5th) - because the combination of 3,5, and 7 (Major 3rd, Aug 5th, Min 7th) does not form a conventional triad.

Example II:16



The dominant 7th suspended 4th chord has no lower structure triads, because the perfect 4th replaces the major 3rd of the chord. (Use the upper structure triad, ♭VII Major [Minor 7th, Major 9th, and Perfect 11th] or I Major [Root, Major 3rd, Perfect 5th] on dominant 7th sus 4 chords).

Example II:17



Common Chord Types	Lower Structure Triads
1. Major 7	I (1, 3, 5) and III - (3, 5, 7)
2. Major 6	I, VI-
3. Dominant 7	I, III° (° = diminished triad)
4. Dominant 7 sus 4	None (use ♭VII UST or I UST)
5. Augmented/Dominant 7 ("altered" scale)	I+
6. Minor/Major 7	I-, ♭III+
7. Minor 6	I-, VI°
8. Minor 7	I-, ♭III
9. Minor 7♭5	I°, ♭III-
10. Diminished 7	I°, ♭III°, ♭V°, VI°
11. Augmented/Major 7	I+, III

Since triads are constructed with intervals of 3rds and 5ths, soloing using triad notes only will necessarily mean more melodic leaping than usual, producing wider, more angular melodic curves. This is desireable because leaps attract attention and make the melody line more interesting. Since many players are more accustomed to using stepwise motion than leaps in their soloing, improvising using triad notes only will present a viable musical challenge.

Practicing Triads

Consider these suggestions when practicing the upcoming triad-arpeggio exercises:

a) work with major triads only at first since they are generally the most familiar and easiest to learn. [Minor and augmented triads will be easier to learn and apply after learning major. Diminshed triads will be easier after learning minor.]

b) practice arpeggios using quarter notes, then 8th notes and triplets

c) use staccato, legato and combined articulations

d) use various tempos, with and without a metronome

e) use a 2-octave range for each arpeggio pattern

f) use the entire range (or a substantial range) of the instrument with each full exercise

g) play each arpeggio pattern ascending/descending and descending/ascending

h) repeats on all exercises are optional

i) wind instrument players should begin the practice session with arpeggios in the mid to low register of the instrument

j) play each arpeggio pattern in all triad inversions

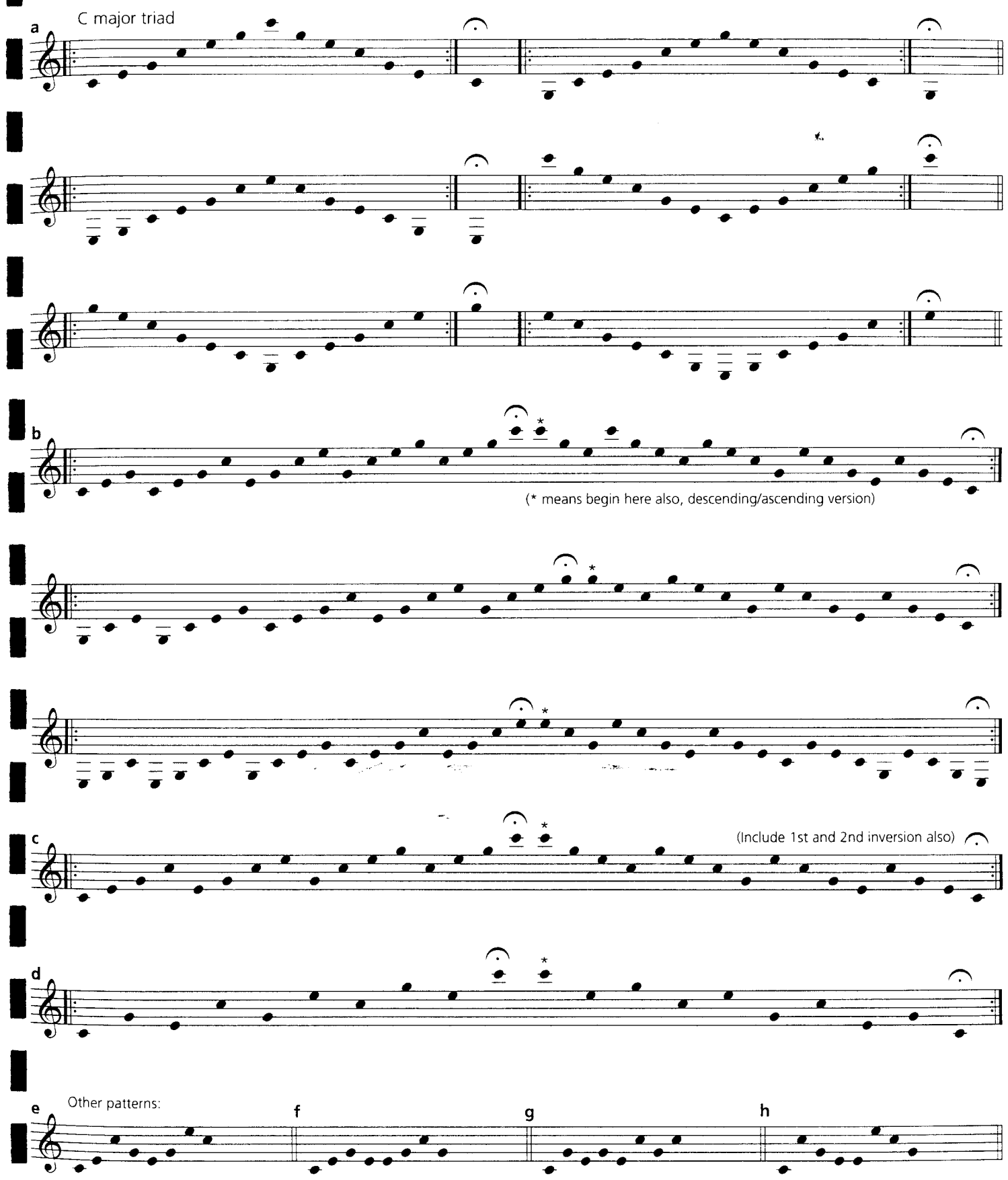
k) begin each exercise on the downbeat

l) begin each exercise on the upbeat

m) practice the same one or two arpeggio patterns for several (6) days before changing to others

Examples: Triad-Arpeggio Patterns (Using C Major Triad)

Example II:18



Practicing Triads - Exercises 1, 2, 3a, 3b, 3c

EXERCISE 1: Practice major triads mechanically in all keys (6 keys one day, the other 6 keys on the next day, etc.), in tempo, with and without a metronome, using simple, broken and compound arpeggio patterns. (See previous examples.)

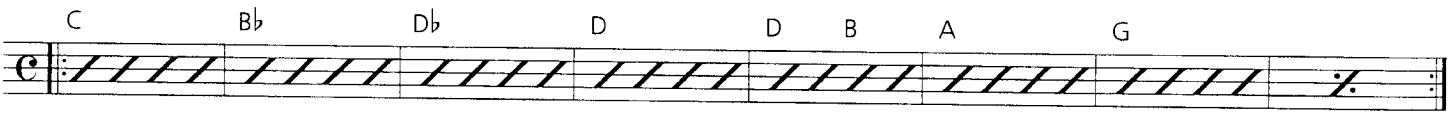
EXERCISE 2: Using the play/rest approach, improvise for several (3-5) minutes in tempo on a single (major) triad using only the notes of that triad, with and without metronome accompaniment. Explore rhythmic variation using repeated notes, quarters, 8ths, triplets, syncopation, etc. Vary the phrase lengths, rhythmic density, articulation, dynamics, etc. to create interest. Repeat in keys used with exercise #1.

Example II:19R

(Using notes of C major triad only)
Swing feel

etc.

EXERCISE 3: Arrange several major triads in a progression. Assign equal or varied durations, balancing the harmonic rhythm.



Improvise on the progression in tempo as follows:

a) Throughout the progression, play 1 3 5 1 or 1 3 5 (or any 3 or 4 note arpeggio pattern using all the notes of the triad) on each chord. Use the following rhythm patterns for variable chord durations:

1) for 4 beats per chord.

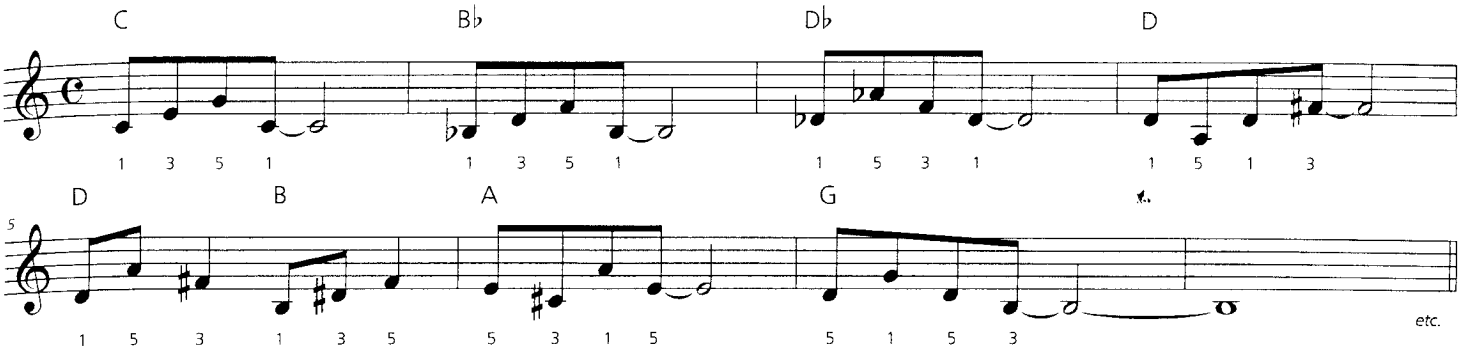
2) for 3 beats per chord.

3) for 2 beats per chord.

[Note: Simpler or improvised rhythms may be used as well.]

Example II:20

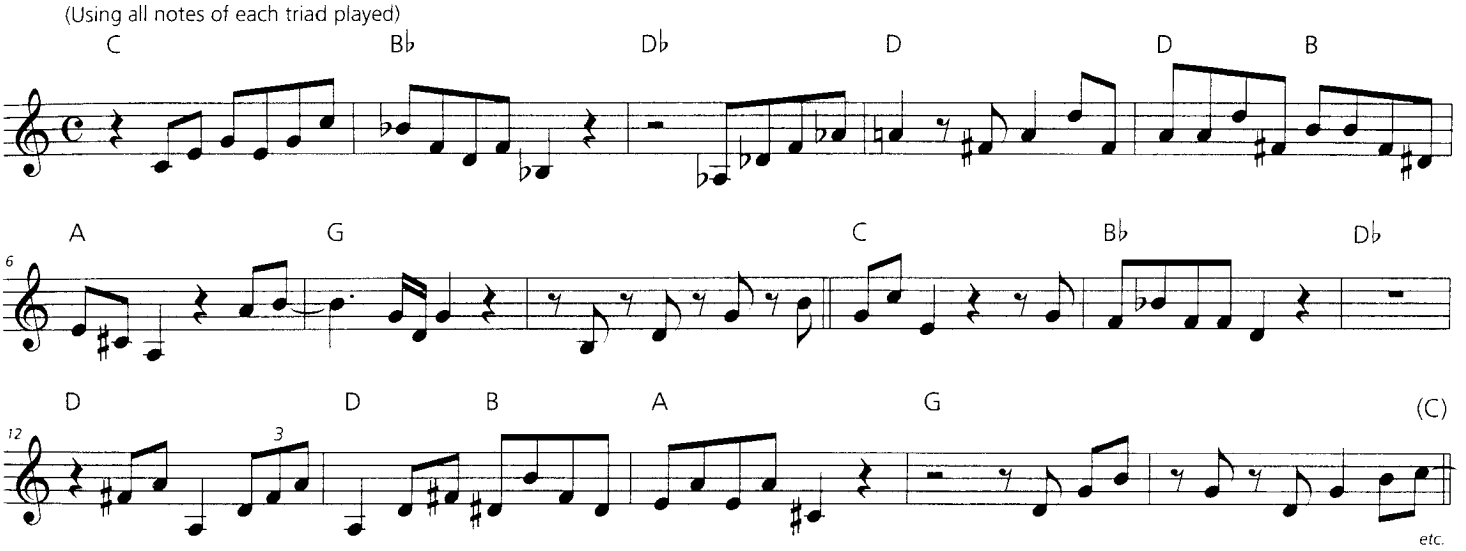
(Using all notes of each triad)



b) Using the play/rest approach, improvise in tempo using all the notes of each triad played on throughout the solo. Practice connecting 2 or more adjacent triads with an active (moving) melody line. Practice with and without metronome accompaniment.

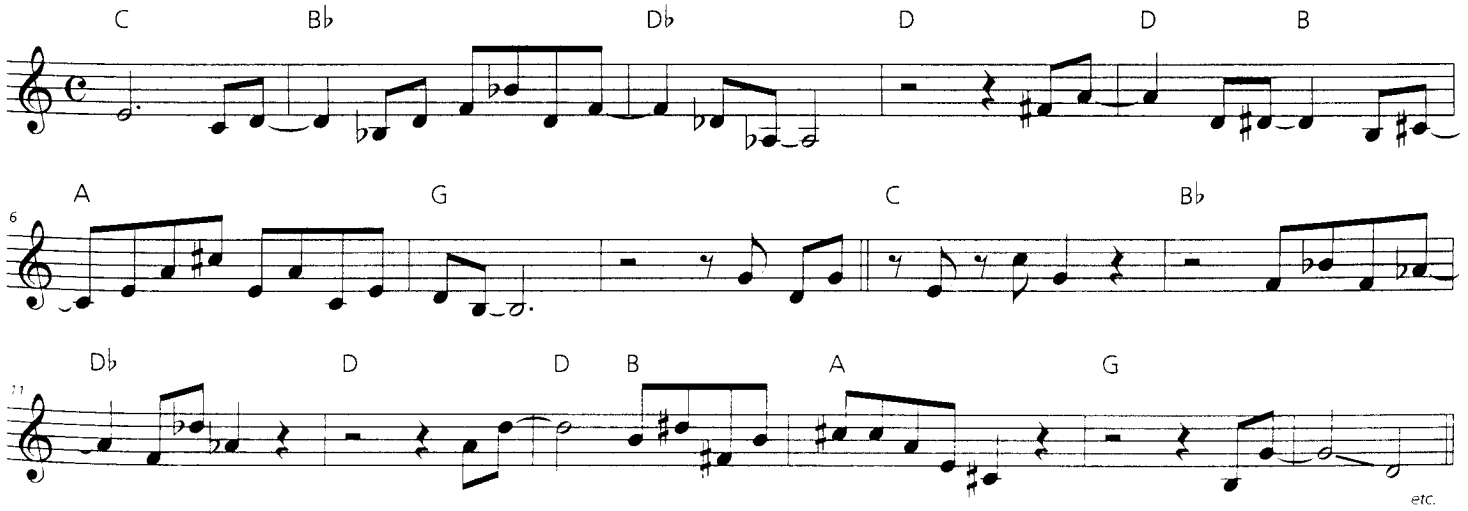
Example II:21R

(Using all notes of each triad played)



c) Using the play/rest approach, improvise in tempo using *all or some* of the notes of each triad played on throughout the solo. Practice connecting two or more adjacent triads with an active (moving) melody line. Practice with and without metronome accompaniment.

Example II:22R



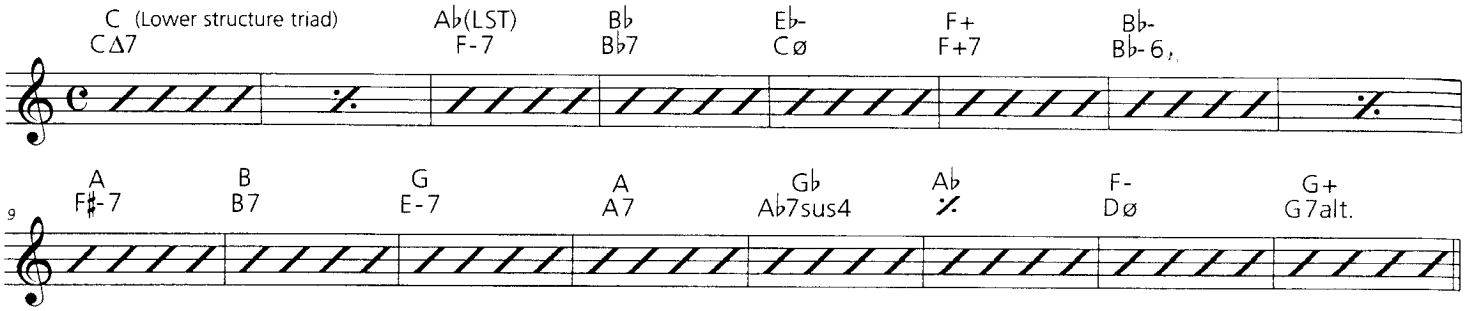
Repeat the previous exercises using minor, augmented and diminished triads *after* making progress with major.

Lower Structure Triads - Exercise #1

Write out a tune progression with chord symbols above the stave.

Select one lower structure triad per chord (choose a major triad when available, otherwise choose minor or augmented). Write it above the stave directly over the corresponding chord symbol to read while soloing.

Example II:23



Throughout the progression, play 1 3 5 1 or 1 3 5 (or any 3 or 4-note arpeggio pattern using all notes of the triad) on each lower structure triad. Use the following rhythm patterns for variable chord durations:

1)

for 4 beats per chord.

2)

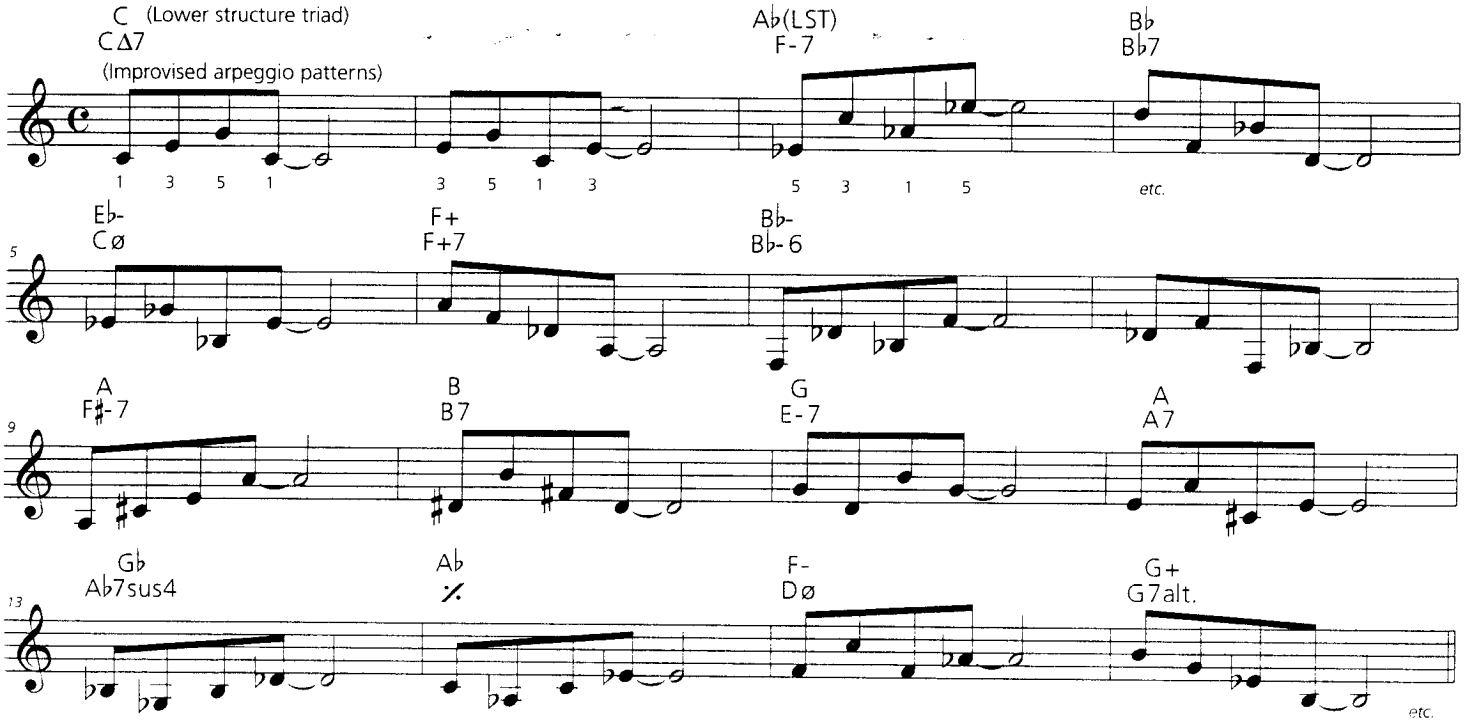
for 3 beats per chord.

3)

for 2 beats per chord.

Repeat the exercise using a new arpeggio pattern (e.g. 1 5 3 8) throughout the progression, and then using different patterns for each chord throughout the progression, etc.

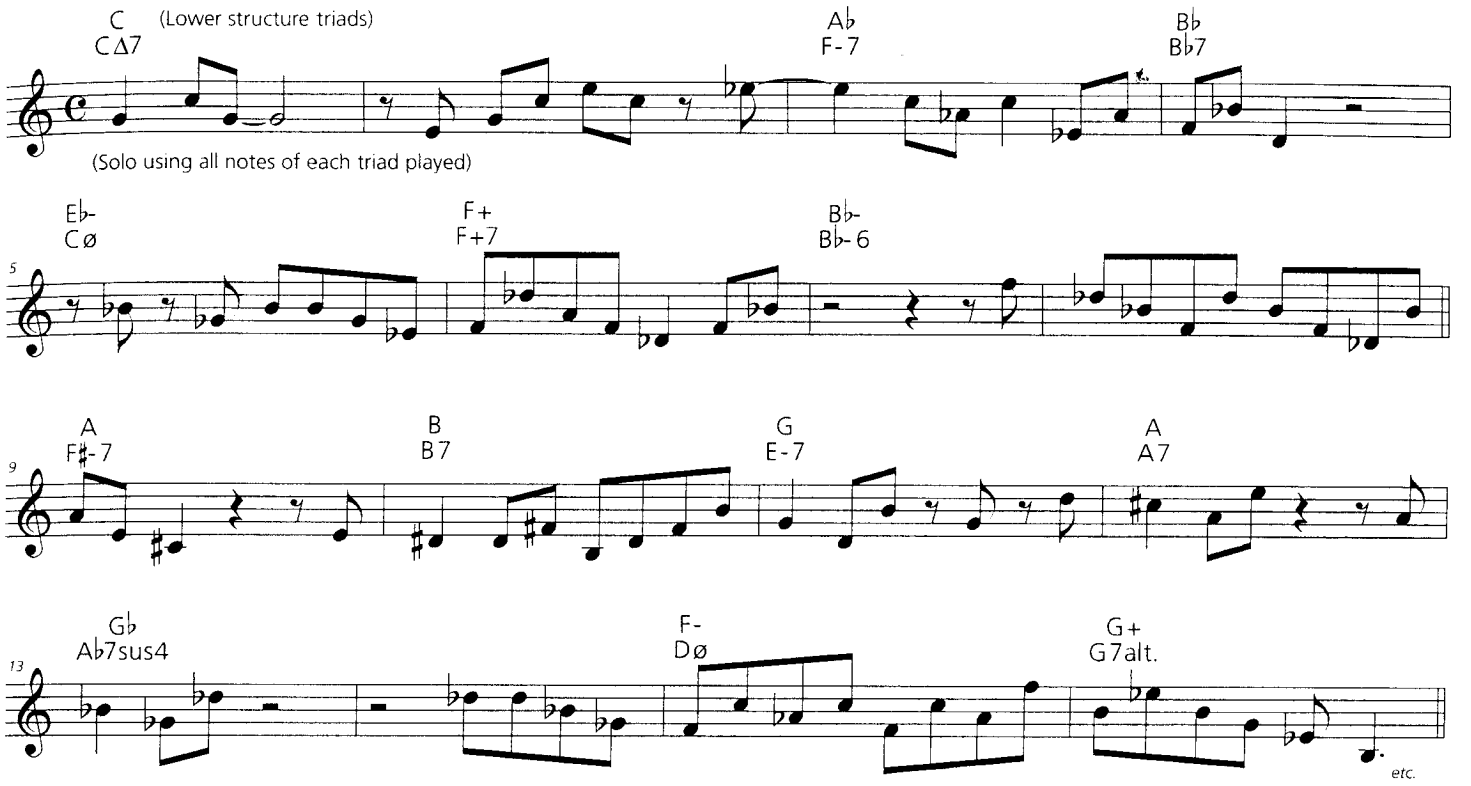
Example II:24R



Lower Structure Triads- Exercise #2

Using the play/rest approach, solo in tempo on the prepared chord progression using all the notes of each triad played on throughout the solo. Practice connecting two or more adjacent lower structure triads with a melody line using notes of triads only.

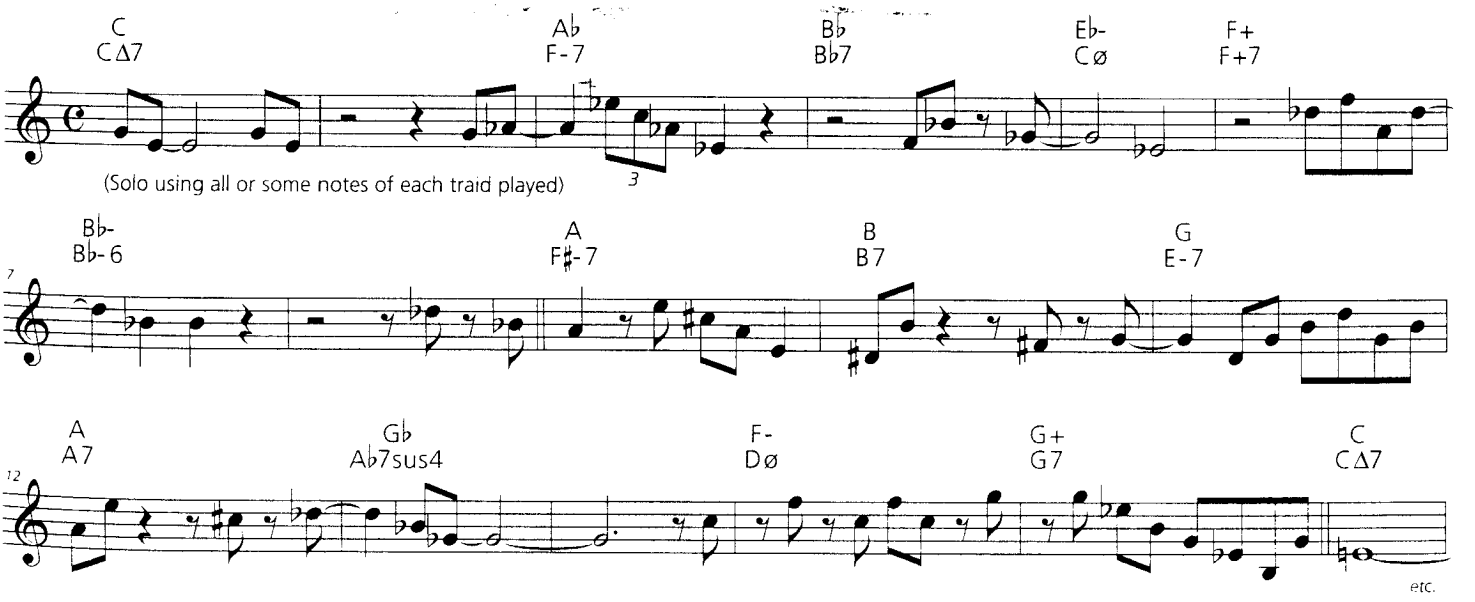
Example II:25R



Lower Structure Triads - Exercise #3

Repeat Exercise #2 using *some or all* the notes of each triad played on throughout the solo.

Example II:26R



Example: Daily Practice Schedule - Practicing Triads

1. 30 (15) minutes on practicing triads, exercise #1.
2. 20 (10) minutes on practicing triads, exercise #2
3. 30 (15) minutes on practicing triads, exercises #3 a, b, c.
4. 20 (10) minutes on the spirit and mood of the music.

Example: Daily Practice Schedule - Lower Structure Triads

1. 20 (10) minutes on exercise #1.
2. 20 (10) minutes on exercise #2.
3. 30 (15) minutes on exercise #3.
4. 20 (10) minutes on the spirit and mood of the music.

Chord Tone Soloing

Using chord tones as the exclusive source to derive melody in an improvised solo is similar to using lower structure triads in that there will be more leaps than usual creating more angular melodies. There will also be a completely "inside" (or tonal) quality to the improvisation.

Inside playing is the foundation supporting "less" inside playing (allowable tensions) and "outside" playing (non-tonal or non-harmonic tones), and therefore it is important to practice. Playing tonally or inside the chord trains the ear and mind to recognize melodic agreement with the harmony. This in turn enables players to hear, recognize and properly execute their less tonal and non-tonal playing more capably.

Following are exercises designed to help prepare for chord tone soloing. Work with individual 4-part chords of the same type (e.g. all major 7th chords) first, in all keys. The conventional 4-part chord types are:

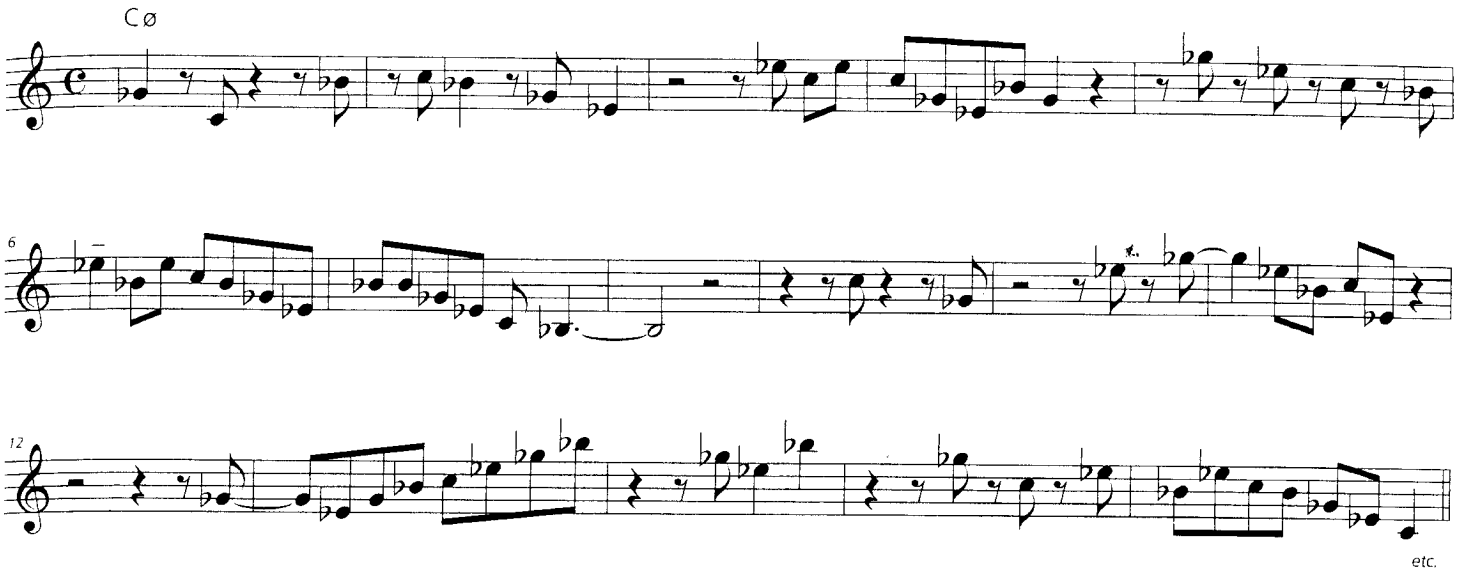
1. Major 6 (1, 3, 5, 6) - inversion of minor 7 chord
* 2. Major 7 (1, 3, 5, 7)
* 3. Dominant 7 (1, 3, 5, -7)
4. Dominant 7 sus 4 (1, 4, 5, -7)
5. Augmented/dominant 7 (1, 3, +5, -7)
6. Minor/major 7 (1, -3, 5, 7)
*7. Minor 6 (1, -3, 5, 6) - inversion of minor 7♭5 chord
*8. Minor 7 (1, -3, 5, -7) - inversion of major 6 chord
*9. Minor 7♭5 (1, -3, °5, -7) - inversion of minor 6 chord
*10. Diminished 7 (1, -3, °5, °7)
11. Augmented/major 7 (1, 3, +5, 7)

* Begin with these chord types

Exercises

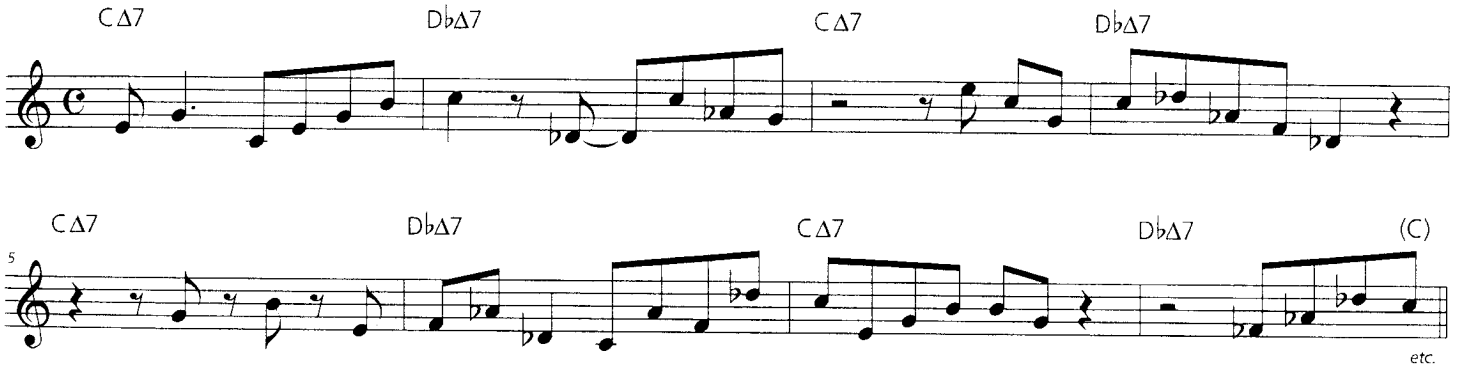
1. Practice individual 4-part chords of the same type mechanically in all keys (6 keys 1 day, the other 6 keys the next, etc.) in tempo, with and without metronome accompaniment, using various arpeggio patterns (see triad arpeggio patterns, page 73.)
2. Using the play/rest approach, improvise on a single 4-part chord using only the notes of that chord, with and without metronome accompaniment. Create variety and interest by exploring rhythm, phrase lengths, registers, rhythmic density, articulation, dynamics, etc. Repeat the exercise using chords of the same type in other keys. Repeat the exercise with other chord types, beginning with the most common ones (see above).

Example II:27R

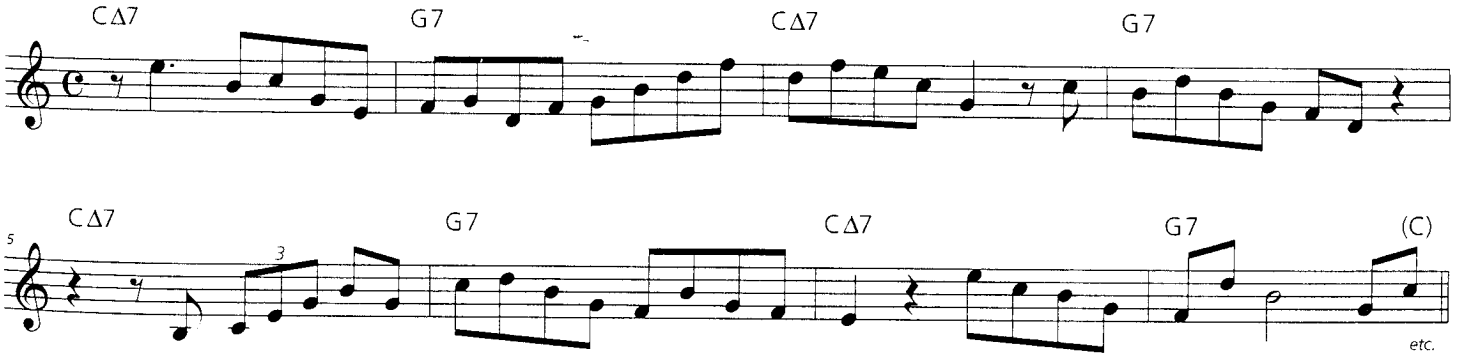


3. Select two 4-part chords of the same type or of different types (e.g. CΔ7 and D♭Δ7 or G7 and CΔ7). Assign equal duration to each, e.g. 4 beats. Using the play/rest approach, improvise in phrases using only the chord tones of each chord. Use some or all notes of each chord.

Example II:28R



Example II:29R



Example: Daily Practice Schedule - Practicing 4-part chords

1. 30 (15) minutes on practicing 4-part chords, exercise #1.
2. 30 (15) minutes on practicing 4-part chords, exercise #2.
3. 30 (15) minutes on practicing 4-part chords, exercise #3.
4. 30 (15) minutes on the spirit and mood of the music.

Chord Tone Soloing - Exercises #1a, 1b and 2

1. Warm up: throughout a tune progression or chord pattern, play 1, 3, 5, 7 or 1, 3, 5, 6 (or any arpeggio pattern using all notes of the chord) on each chord of the progression.

   Use | 1 3 5 7 | (rhythm pattern) for chords of 4 beats duration,

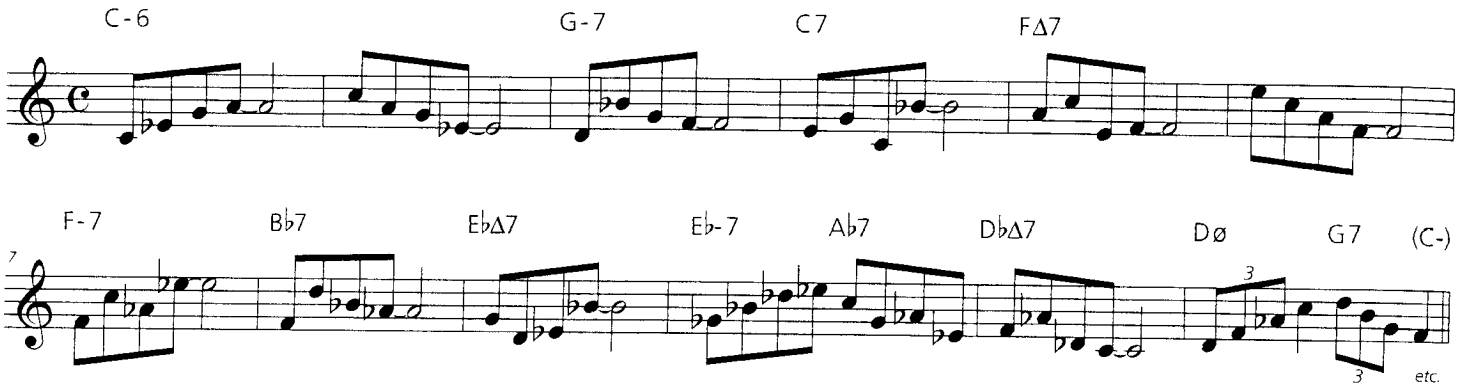
   | 1 3 5 7 | for chords of 3 beats duration (3/4),

   and 1 3 5 7 or 3 1 3 5 7 for chords of two beats duration.

   a) Use the same arpeggio pattern throughout the solo.

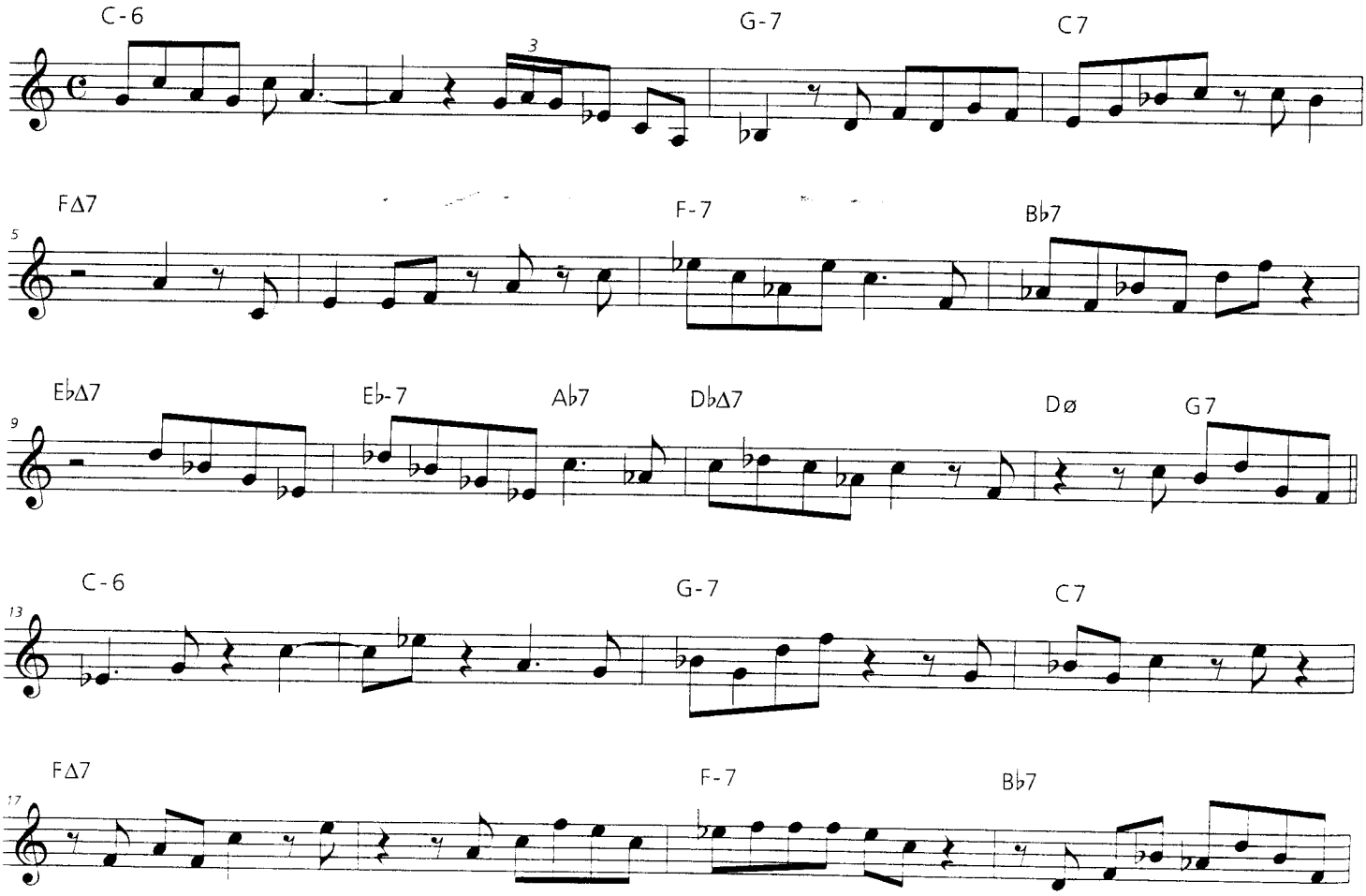
   b) Use different arpeggio patterns throughout the solo.

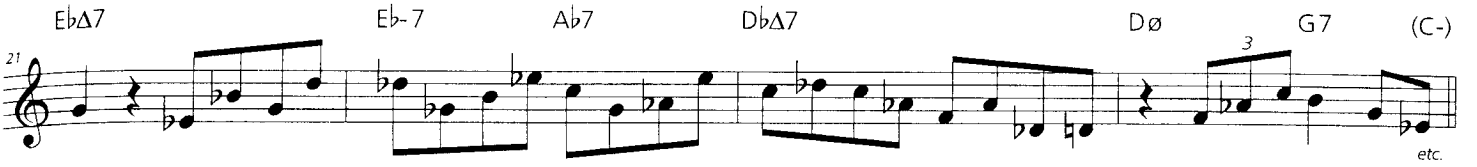
Example II:30R



2. Using the play/rest approach, improvise in tempo on a tune progression connecting two or more adjacent chords with a melody line using chord tones only. Use some or all notes of each chord played.

Example II:31R





Example: Daily Practice Schedule - Chord Tone Soloing

1. 40 (20) minutes on exercises #1a and b.
2. 60 (30) minutes on exercise #2.
3. 20 (10) minutes on the spirit and mood of the music.

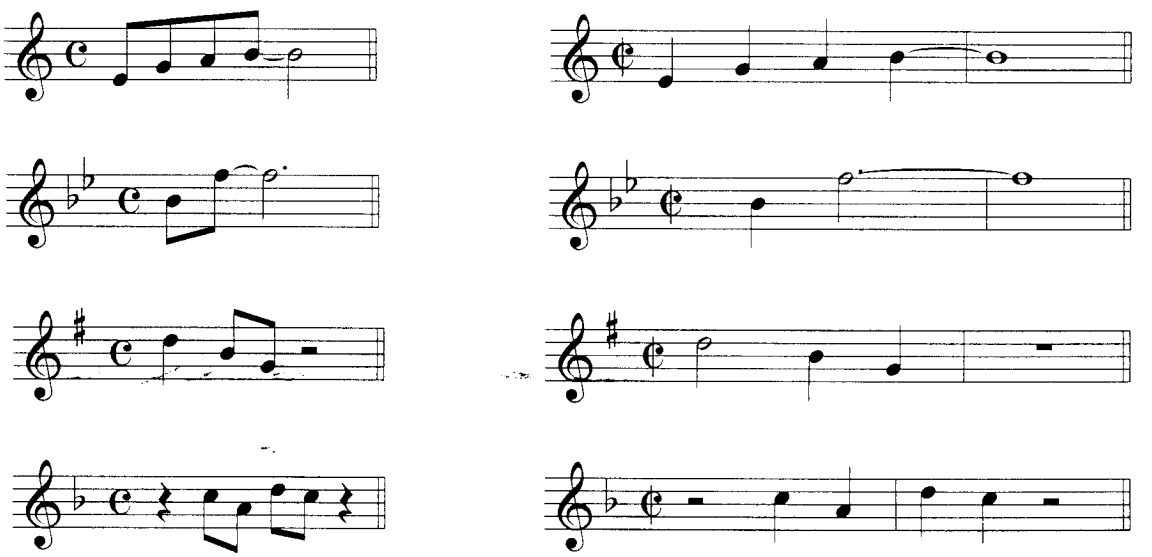
Motif Soloing

Motif - a small, thematic unit of melody, roughly between 2 and 8 notes, *consisting of a single idea or musical thought,* similar to a short sentence in language, generally not longer than 2 bars (unless written in cut time). A motif's ending is detemined by a brief or sustained period of rest or inactivity which defines the idea and allows time for its effect to be realized. The total length of a motif often includes this period of inactivity which immediately follows it.

Examples of 1-bar and 2-bar motifs

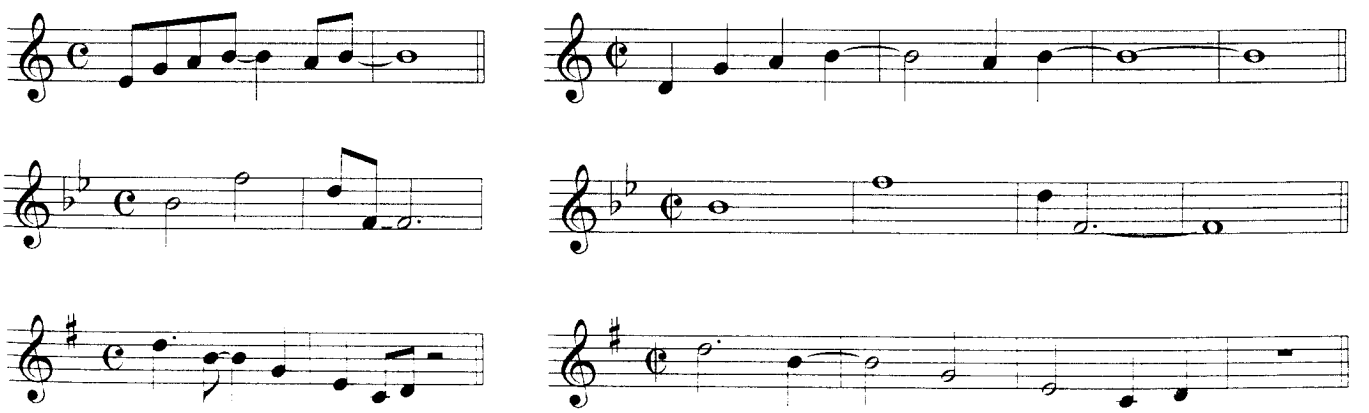
1-measure motifs (2-measure motifs in cut time 𝄵)

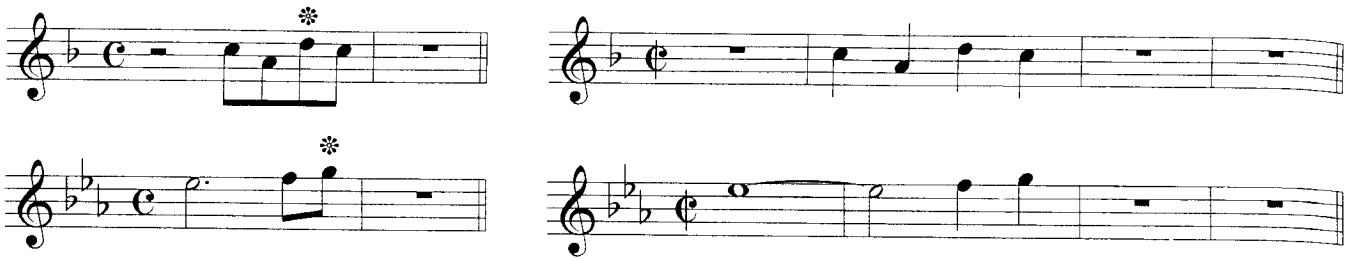
Example II:32



2-measure motifs (4-measure motifs in cut time 𝄵)

Example II:33

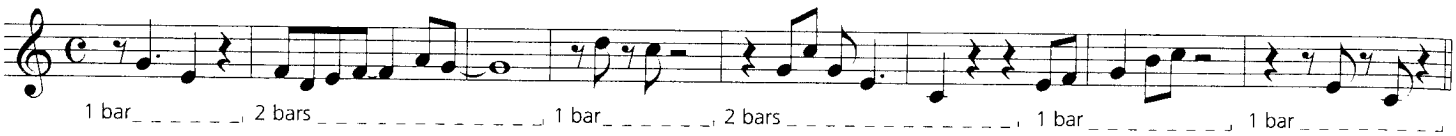




* [Note: Increasing the melodic activitiy at or near the end of a measure extends or projects the length of a motif into the next measure.]

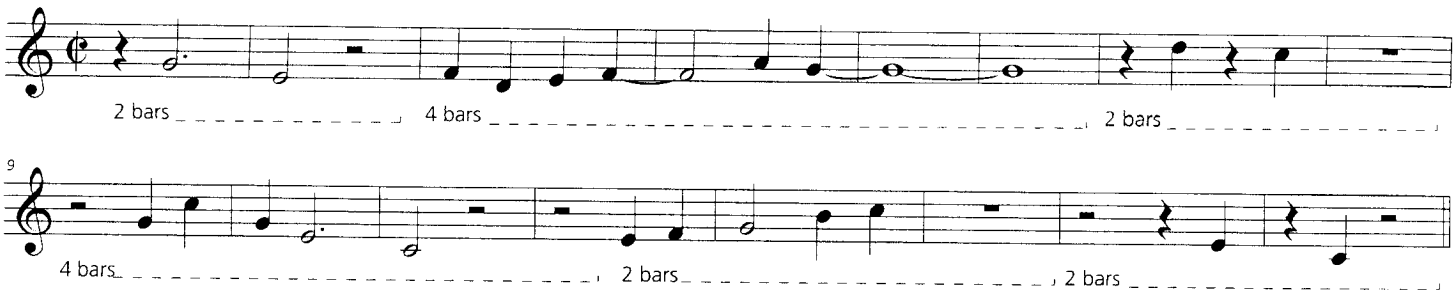
Mixing 1-bar and 2-bar motifs:

Example II:34



Above example in cut time:

Example II:35



Motif Soloing - Playing short, simple ideas which lend themselves well or easily to melodic development. The primary musical elements involved in development are rhythm and melody. (Pitch and melodic curve are the results of melody and can be used for development purposes as well.)

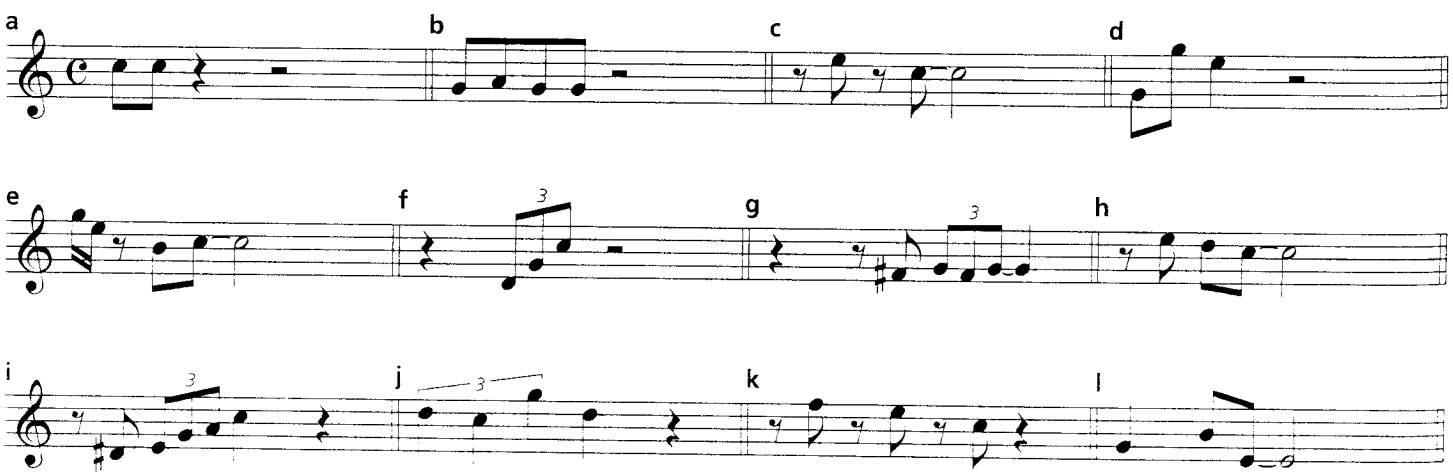
"Developable" ideas, therefore, must have strong rhythmic and/or melodic characteristics which can be easily recognized [by ear] and used as building material for motif developments in solos.

It is important to practice and learn how to play developable ideas *before* working on the various ways of developing them. Study and play the following examples of developable motifs.

Examples of developable ideas (motifs)

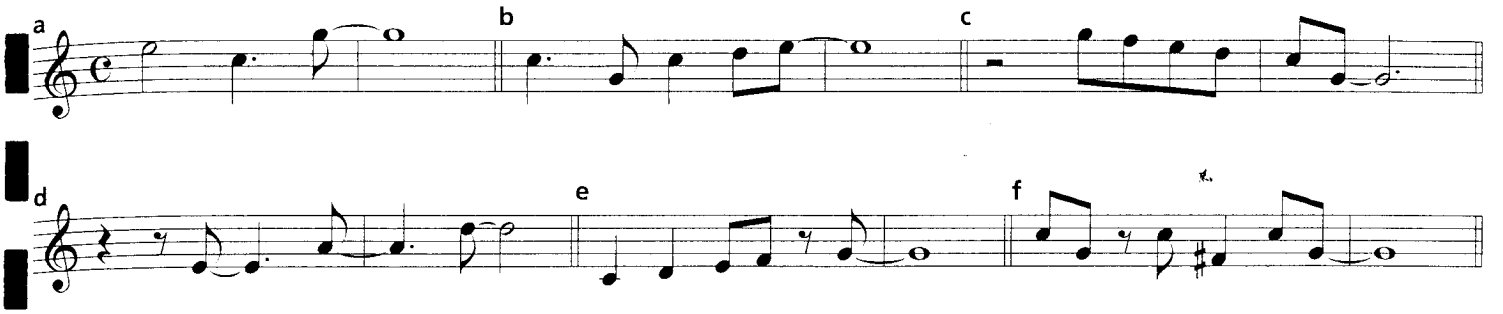
1-measure motifs

Example II:36



2-measure motifs

Example II:37



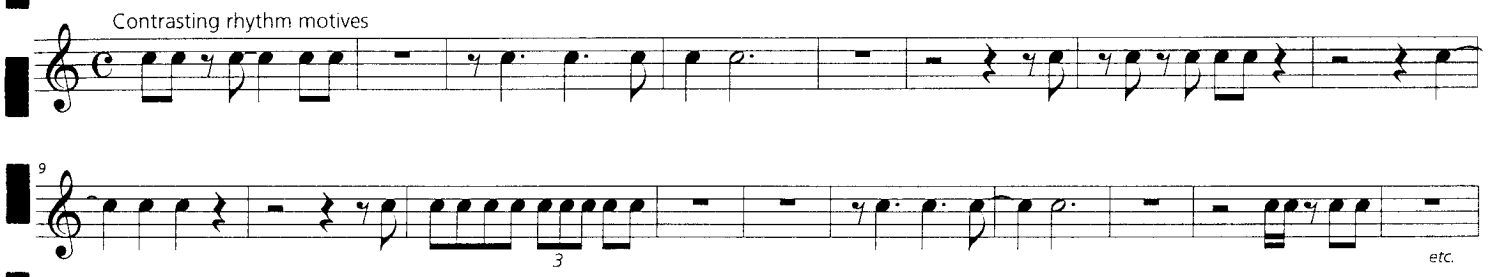
Motif Soloing - Exercises #1 and 2

1) Using a single pitch (note) only, with metronome accompaniment, apply the play/rest approach to improvising short rhythm motifs with developable characteristics, i.e. no melody or harmonic settings.

   Practice hearing or recalling the rhythm of each idea in your mind's ear during the rest period which follows, but do not attempt imitation with the next motif. The objective is to play consecutive rhythm motifs of *contrasting* nature, i.e. no repetition, through-composed.

   [Note: Materials or ideas *may* be imitated (repeated) *within* a single motif but not shared by two separate ones.]

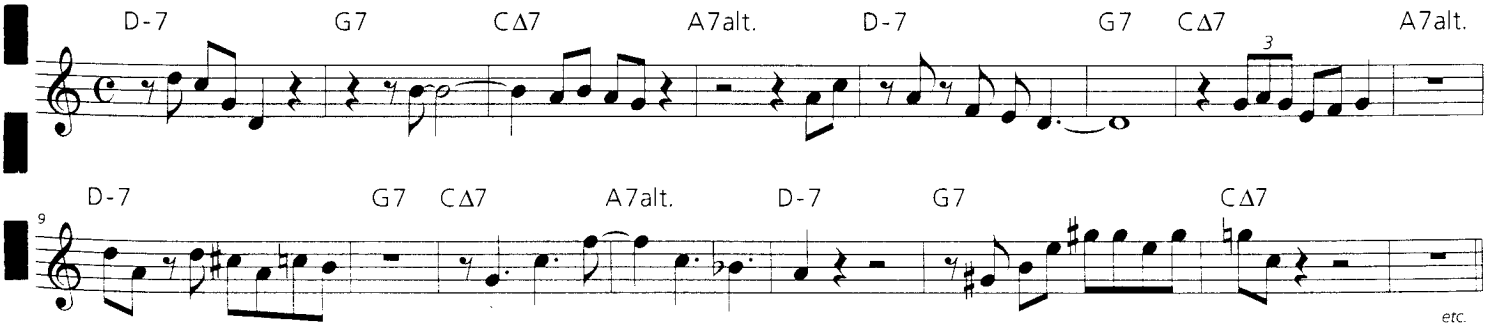
Example II:38R



2) Select a harmonic setting, tempo, and mode of accompaniment. Using the play/rest approach, improvise with the emphasis on playing short developable motifs (1-8 beats). Consider the importance of rhythmic/melodic strength and simplicity.

   Practice hearing or recalling the rhythmic and melodic shapes of each idea in your mind's ear during the rest period which follows it, but do not attempt imitation with the next motif. The objective is to play consecutive motifs of contrasting rhythmic/melodic nature for now, i.e. no repetition, through-composed.

Example II:39R



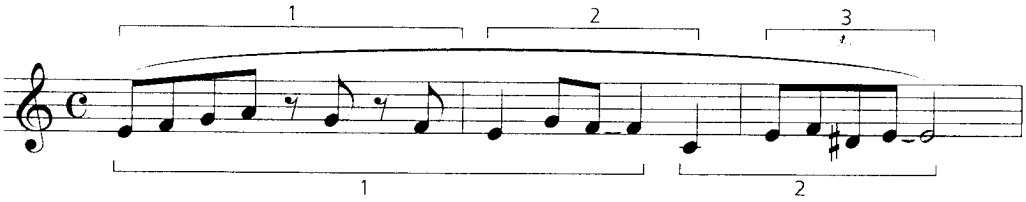
Example: Daily Practice Schedule - Motif Soloing

1. 30 (15) minutes on exercise #1.
2. 60 (30) minutes on exercise #2.
3. 20 (10) minutes on the spirit and mood of the music.

Multi-Motif Phrase - Two (2) or more motifs connected so that *no siginificant* rest or space occurs between them, sometimes creating an overlapping effect, often indistinguishable where one idea ends and the next one begins. A multi-motif phrase generally contains more than 8 notes, is usually longer than 2 bars (unless played in double time), and often more than one analysis of individual motif activity within the overall phrase is possible.

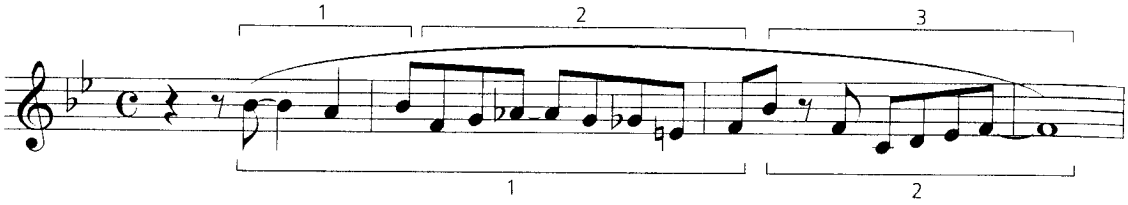
Examples of multi-motif phrases:

Example II:40



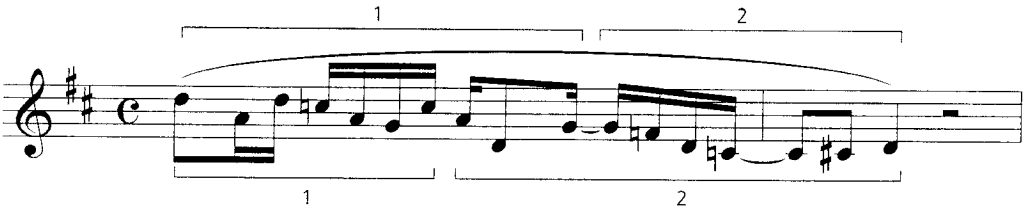
More than one analysis is possible.

Example II:41



Multi-motif phrase less than 2 bars - written in double time.

Example II:42



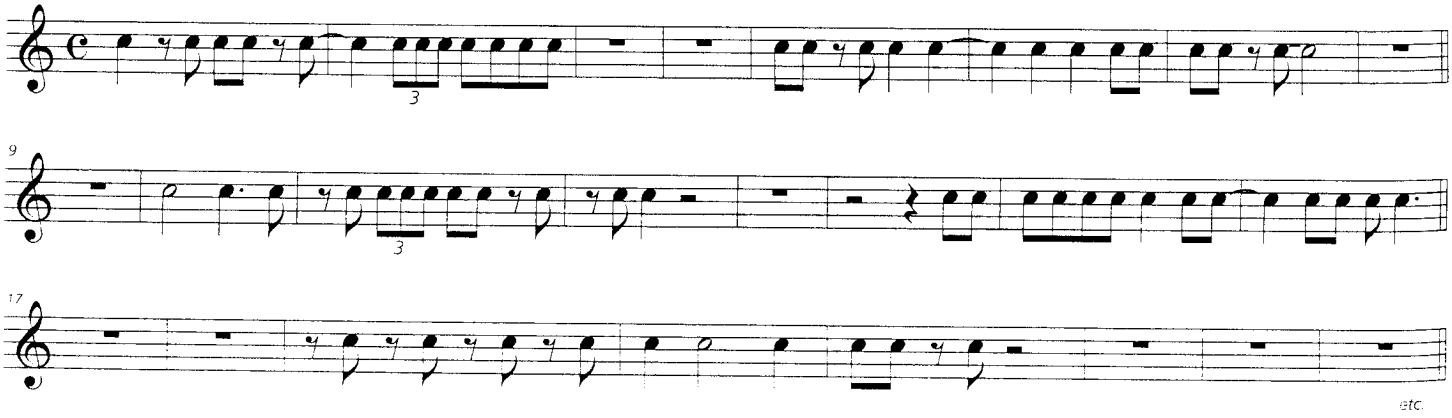
Multi-Motif Phrase Soloing - Exercises #1 and 2

1) Using a single pitch (note), with metronome accompaniment, apply the play/rest approach to improvising multi-motif phrases with developable characteristics using rhythm only, i.e. no melody or harmonic settings.

   Practice hearing or recalling the rhythm of each idea (or part of it) in your mind's ear during the rest period which follows it, but do not attempt imitation with the next phrase. The objective is to play consecutive phrases of *contrasting* rhythmic nature, i.e. no repetition, through-composed.

   [Note: Materials or ideas *may* be imitated (repeated) *within* a single multi-motif phrase but not shared by two separate phrases.]

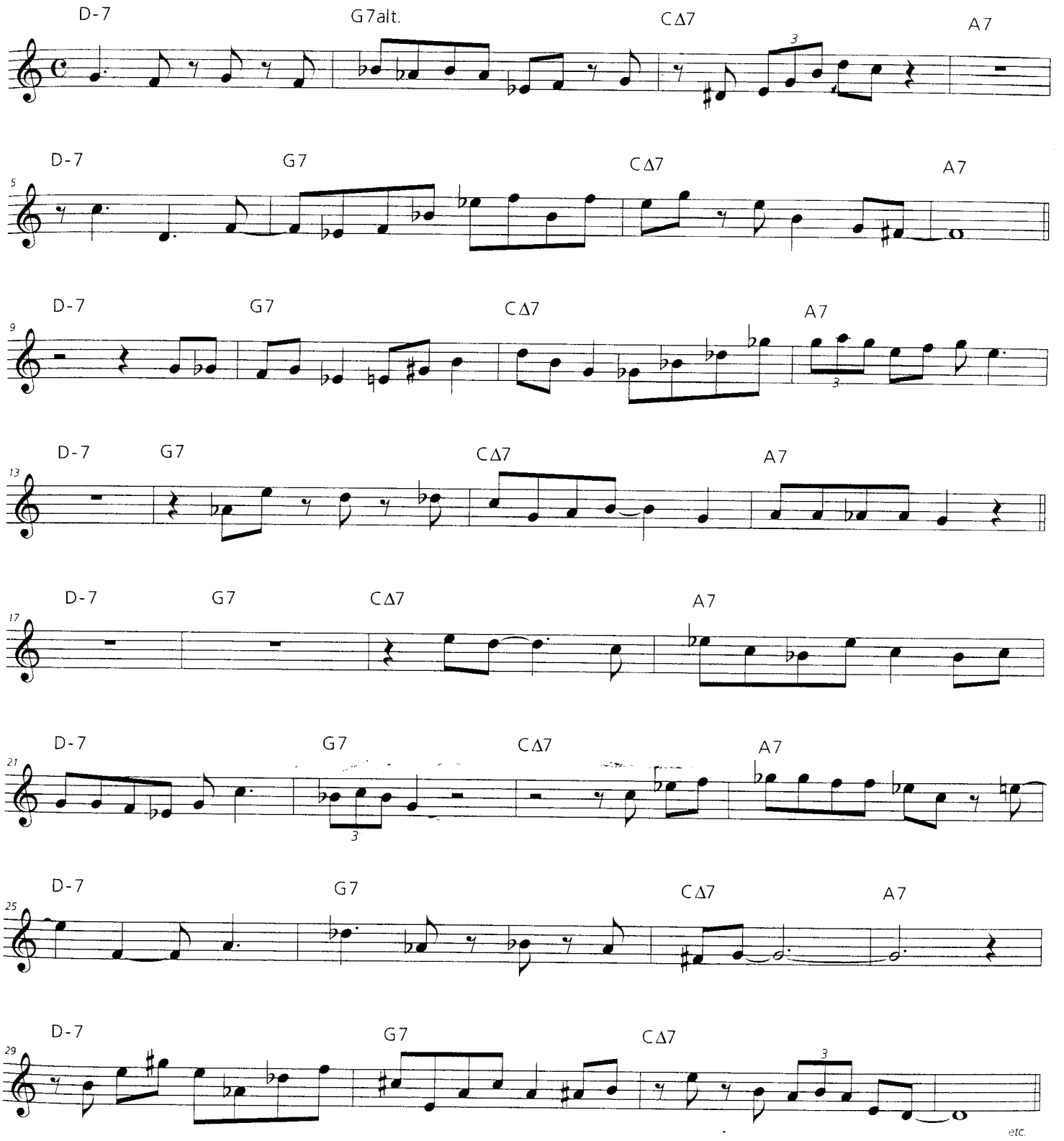
Example II:43R



2) Select a harmonic setting, tempo, and mode of accompaniment. Using the play/rest approach, improvise with the emphasis on playing longer phrases (3-4 measures) consisting of two or more short, connected motifs.

Practice hearing or recalling the rhythm and melodic shape of the ending (or beginning) of each phrase during the rest period immediately following it, but do not attempt imitation in the next phrase. The objective is to play phrases of *contrasting* rhythmic/melodic nature.

Example II:44R



Example: Daily Practice Schedule - Multi-Motif Phrase Soloing

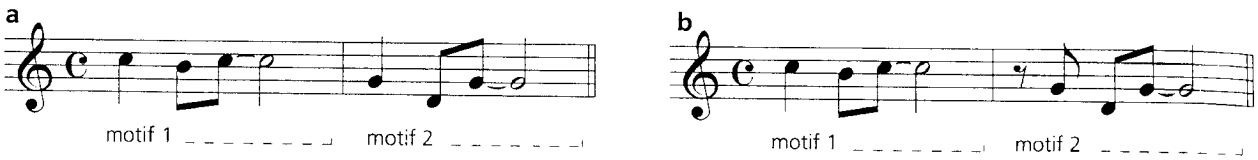
1. 30 (15) minutes on exercise #1.
2. 60 (30) minutes on exercise #2.
3. 20 (10) minutes on the spirit and mood of the music.

Motif Development

Study the following definitions and accompanying examples before practicing the exercises on motif development.

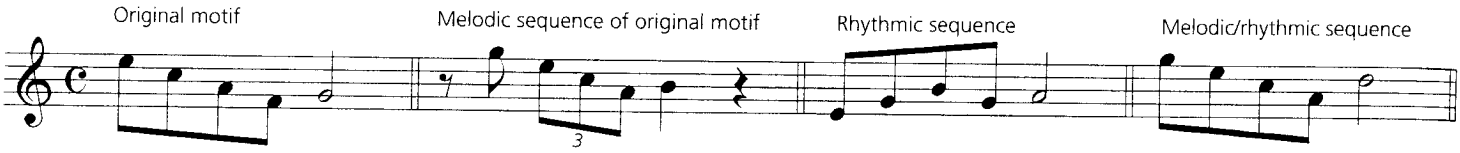
Continuity - The "relatedness" between 2 or more ideas, or, the result of ideas which have at least one musical element in common, such as the same rhythm, or melody notes, or melodic curve. For example, if two motifs have the same (or very similar) rhythm, then continuity is created by the rhythm.

Example II:45 Continuity (established through repeated rhythm)



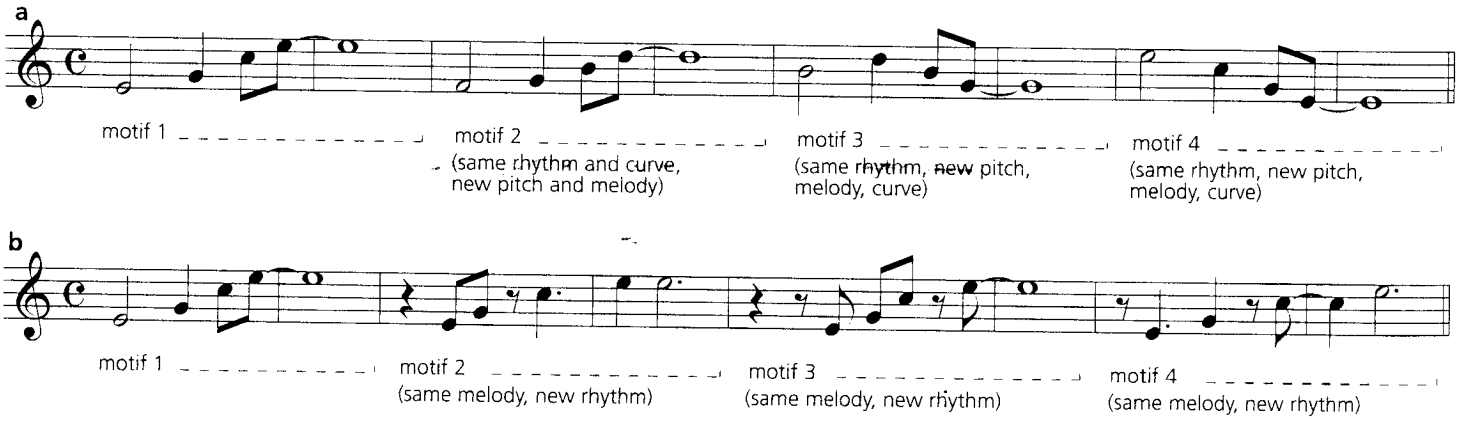
Sequence - The repetition of certain musical elements for the purpose of creating continuity, e.g. rhythmic sequence (the rhythm is repeated), melodic sequence (the melody or melodic curve is repeated), or rhythmic/melodic sequence (the rhythm and melodic curve are both repeated).

Example II:46 Sequence



Motif Development - Occurs when at least one musical element of a motif is the same as (or very similar to) that of a previous motif, establishing continuity, while the other musical elements *change* to create something new for the sake of interest. For a motif development to be successful or effective, that which is the same between the 2 ideas and that which is different must be obvious to the ear.

Example II:47 Motif Development



By far the most common way to develop a motif in an improvised solo is to repeat the rhythm or a recognizable portion of it (rhythmic sequence) while changing the melody notes, i.e. same or similar rhythm, new melody. This is called melodic transformation.

Other types of motif development include:

(1) repeating the melody or melodic curve while changing the rhythm (rhythmic transformation);

(2) repeating the rhythm and intervals of the melody while changing the pitch level (transposition);

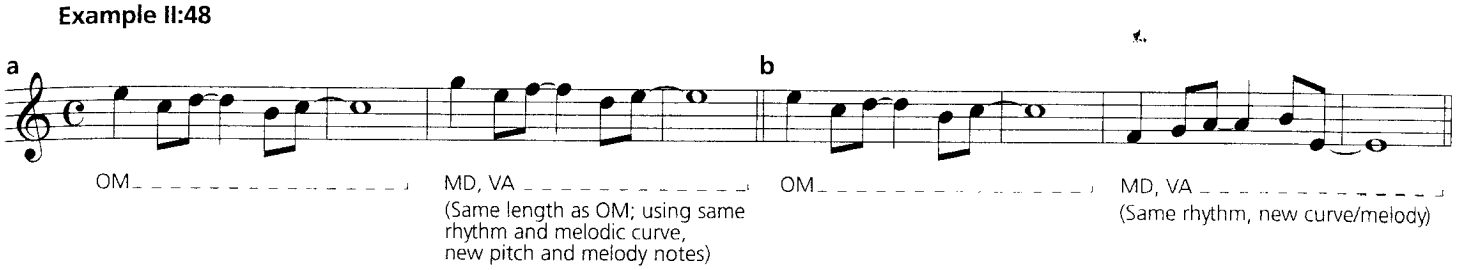
(3) creating slight additions and/or deletions in the melody and/or rhythm of a previous motif (embellishment). (See the section on Embellishment for specific techniques.)

With melodic transformation (same or similar rhythm, new melody), a motif development can be equal in length to the original motif it is based on (called Variation), or longer (called Extension), or shorter (called Fragmentation).

Variation (VA)- the rhythm of a previous motif is repeated (more or less) in its entirety, (more or less) exactly while some or all of the melody changes.

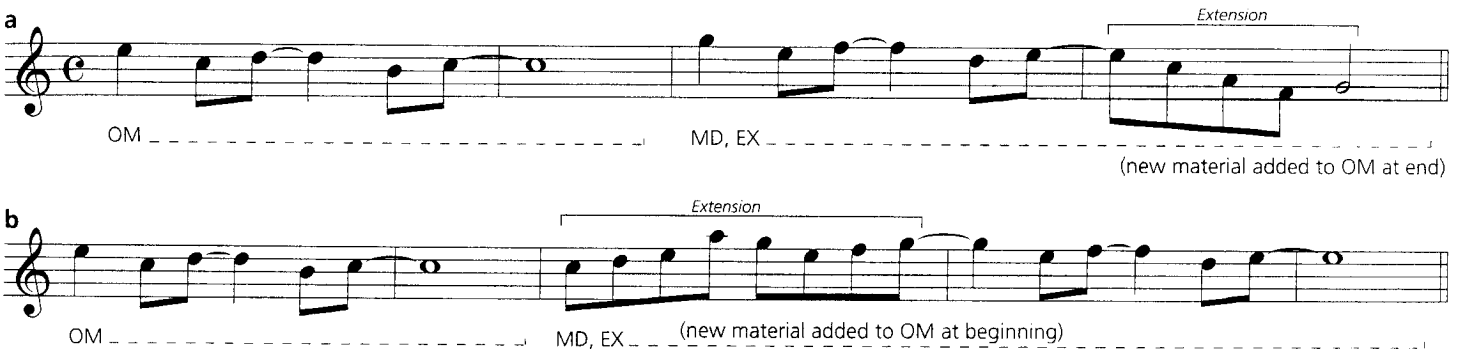
[Note: See abbreviations for motif analysis on page 88.]

Example II:48



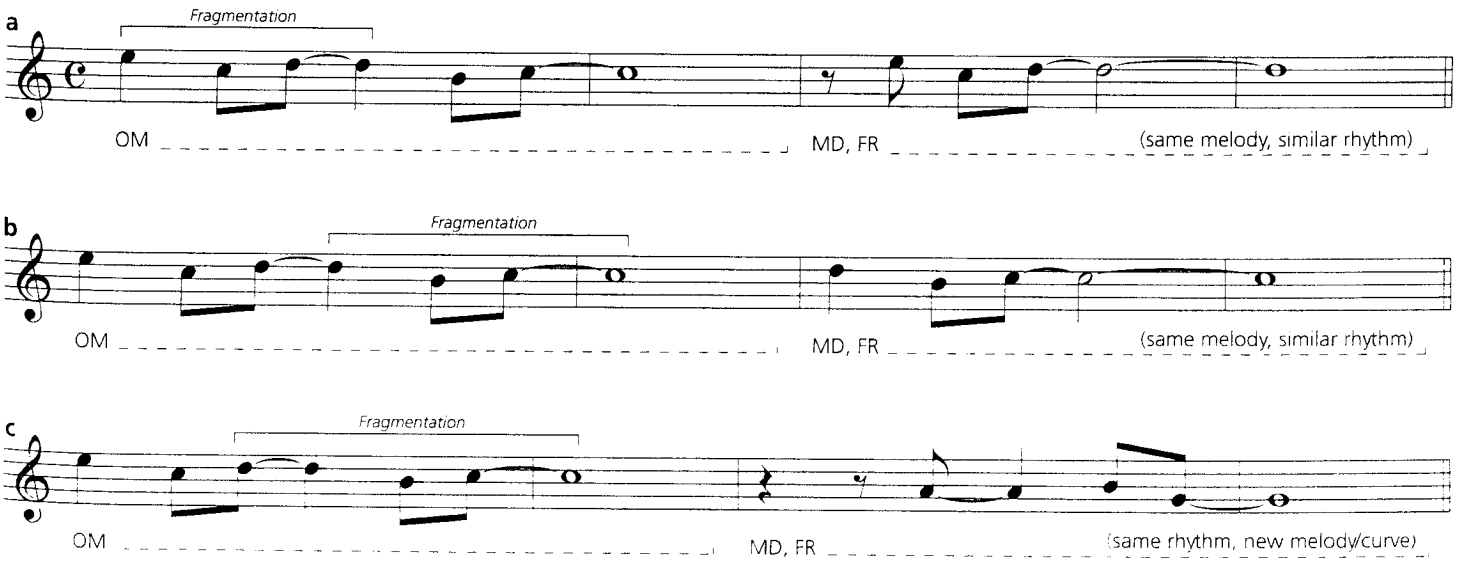
Extension (EX) - the rhythm of a previous motif (and sometimes the melody or melodic curve also) is repeated (more or less) in its entirety, (more or less) exactly and is *immediately* followed with new material for a brief or sustained period of time. There is *no significant* rest or space between the motif and its extension. The new material may immediately precede the motif as well.

Example II:49



Fragmentation (FR) - the rhythm and usually the melody or melodic curve of only a segment or *recognizable* portion of a previous motif is repeated as the *only* material in the motif development. The fragment may be borrowed from the beginning, middle or end of the original motif.

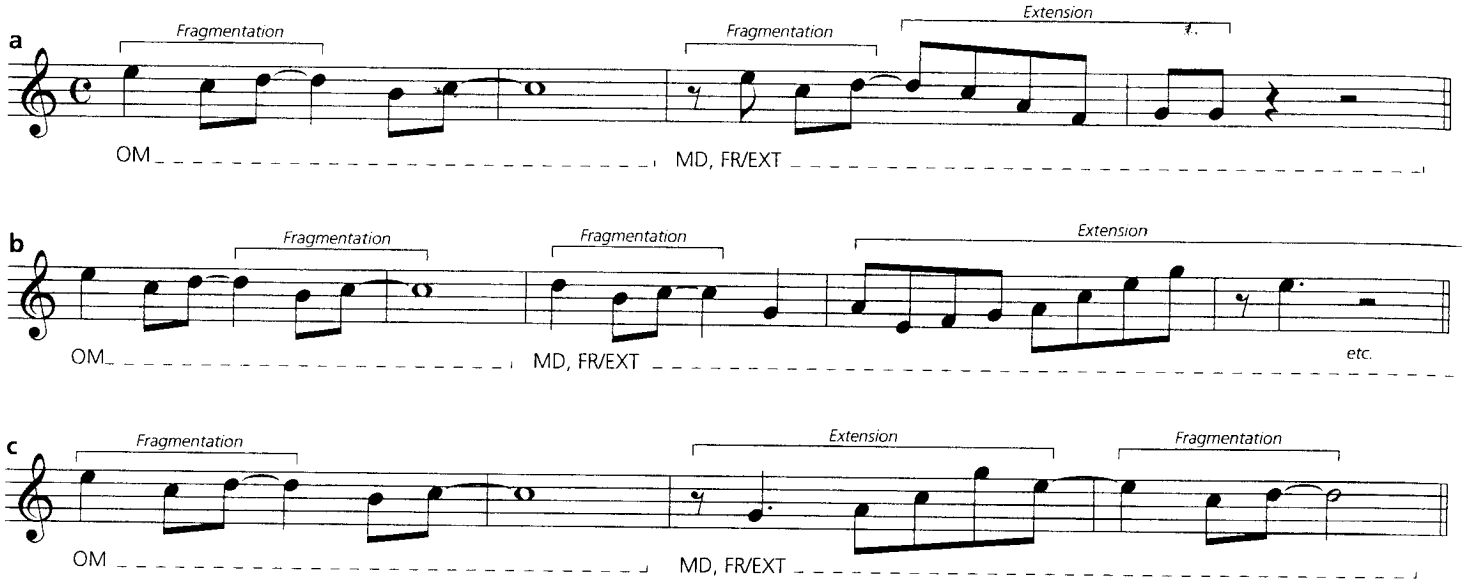
Example II:50



There is a fourth possibility, which is actually used quite often, called "Fragmentation/Extension."

Fragmentation/Extension (FR/EXT) - the rhythm and usually the melody or melodic curve of only a segment or *recognizable* portion of a previous idea is repeated and *immediately* followed with new material for a brief or sustained period of time. There is *no significant* rest or space between the fragment and its extension. The new material may immediately precede the fragment as well. The fragment may be borrowed from the beginning, middle or end of the original motif.

Example II:51



The following abbreviations are used for analyzing the musical examples of motif development exercises:

VA - Variation

EX - Extension

FR - Fragmentation (fragment)

FR/EX - Fragmentation/Extension

EX/FR - Extension/Fragmentation

OM - Original motif

MMP - Multi-motif phrase

MD - Motif development

R - Rhythm

M - Melody

C - Curve (melodic)

P - Pitch level

RD - Rhythmic displacement (starting a MD on a different beat than the OM)

S - Same or similar

N - New

Motif Development Exercises: Variation (VA), Extension (EX), Fragmentation (FR) and Fragmentation/Extension (FR/EX)

[Note: Whenever appropriate, the following exercises should first be practiced using a single pitch (note) with rhythm only, disregarding the instructions relating to melody, melodic curve and harmonic settings.]

Variation (VA)

After selecting a harmonic setting, tempo, and mode of accompaniment, improvise as follows:

1. a) play a short motif containing "developable" characteristics (1-8 beats);

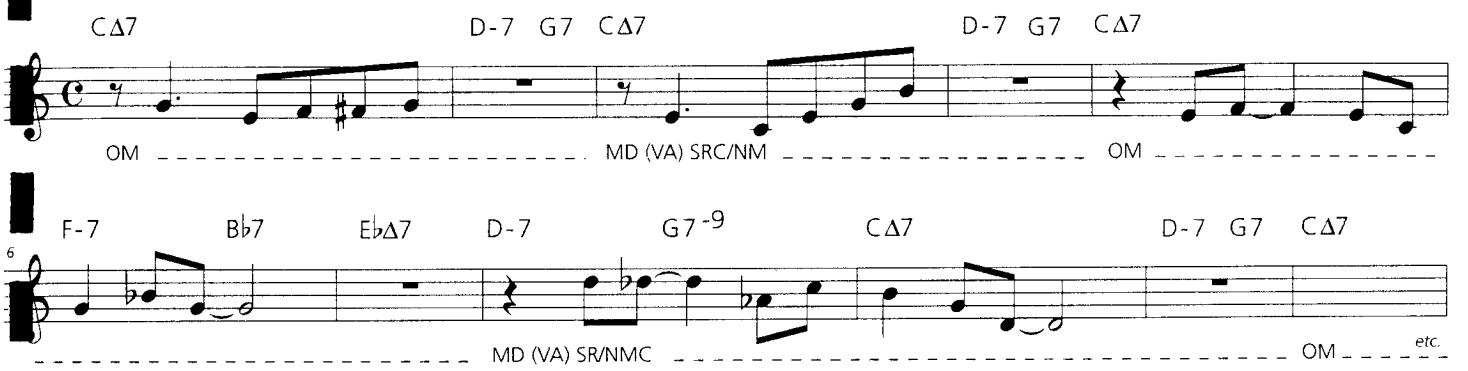
   b) rest (4-8 beats);

   c) play one development by repeating the rhythm and changing some or all of the melody notes of the previous idea (melodic curve can be same, similar, or new);

   d) rest;

   e) repeat a-d (above) throughout the solo using a different original motif each time.

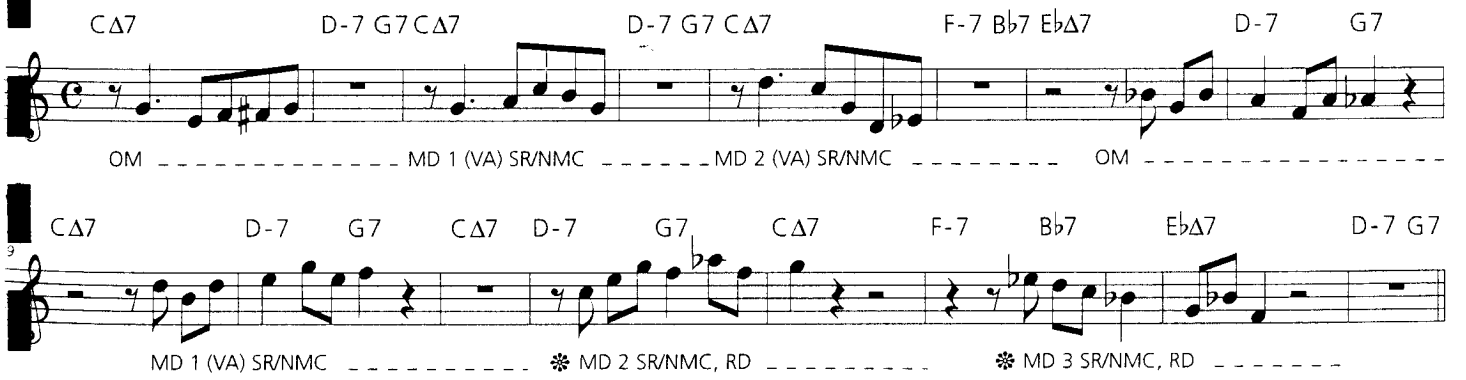
Example II:52R



Continue the above exercise form for several minutes at a time. Record the solo for critique.

2. Repeat the first exercise form playing 2 (or more) developments of each original motif before playing a new idea.

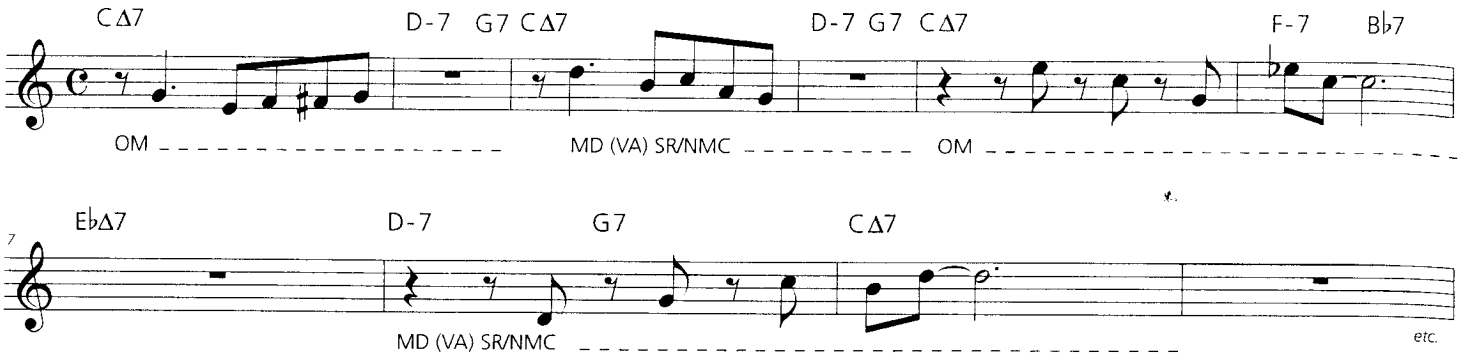
Example II:53R



❊ These motif developments start on different beats of the measure compared to the original motif. This is called rhythmic displacement (RD), which, in itself, is a form of development. An entire chapter of the book is devoted to this topic, but for now it is not a major concern.

3. Repeat the first exercise form changing all or some of the melodic curve in each development.

Example II:54R



4. Repeat the first exercise form playing as many developments of the original idea as possible (i. e. for one or more choruses duration) before changing to a new idea.

Extension (EX)

After selecting a harmonic setting, tempo, and mode of accompaniment, improvise as follows:

1. a) play a short motif containing developable characteristics (1-8 beats);

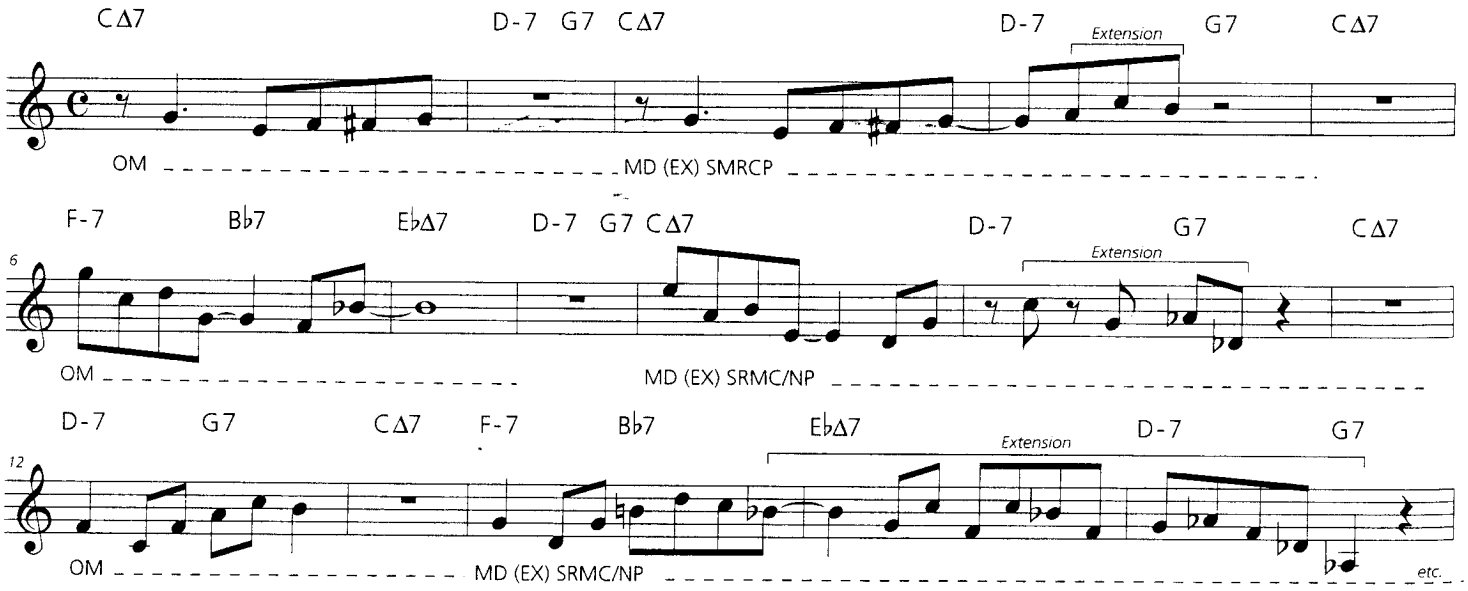
   b) rest (4-8 beats):

   c) play one development by repeating the rhythm and repeating or changing the melody notes of the previous idea (melodic curve can be the same, similar or new), then *immediately* add new material for X beats;

   d) rest;

   e) repeat a-d (above) throughout the solo using a different original motif each time.

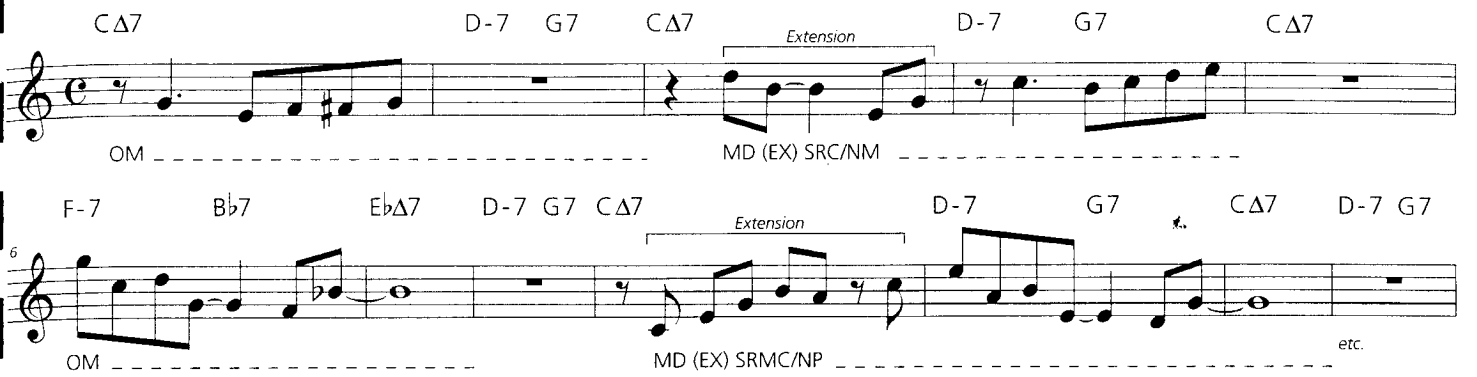
Example II:55R



Continue the above exercise form for several minutes at a time. Practice playing short, medium and long extensions. Record the solos for critique.

2. Repeat the first exercise form putting the extension *before* the development, i.e. the new material immediately precedes the development rather than follows it. (New material may be for short, medium or longer periods.)

Example II:56R



Fragmentation (FR)

After selecting a harmonic setting, tempo, and mode of accompaniment, improvise as follows:

1. a) play a slightly longer motif or multi-motif phrase containing developable characteristics (2-3 measures);

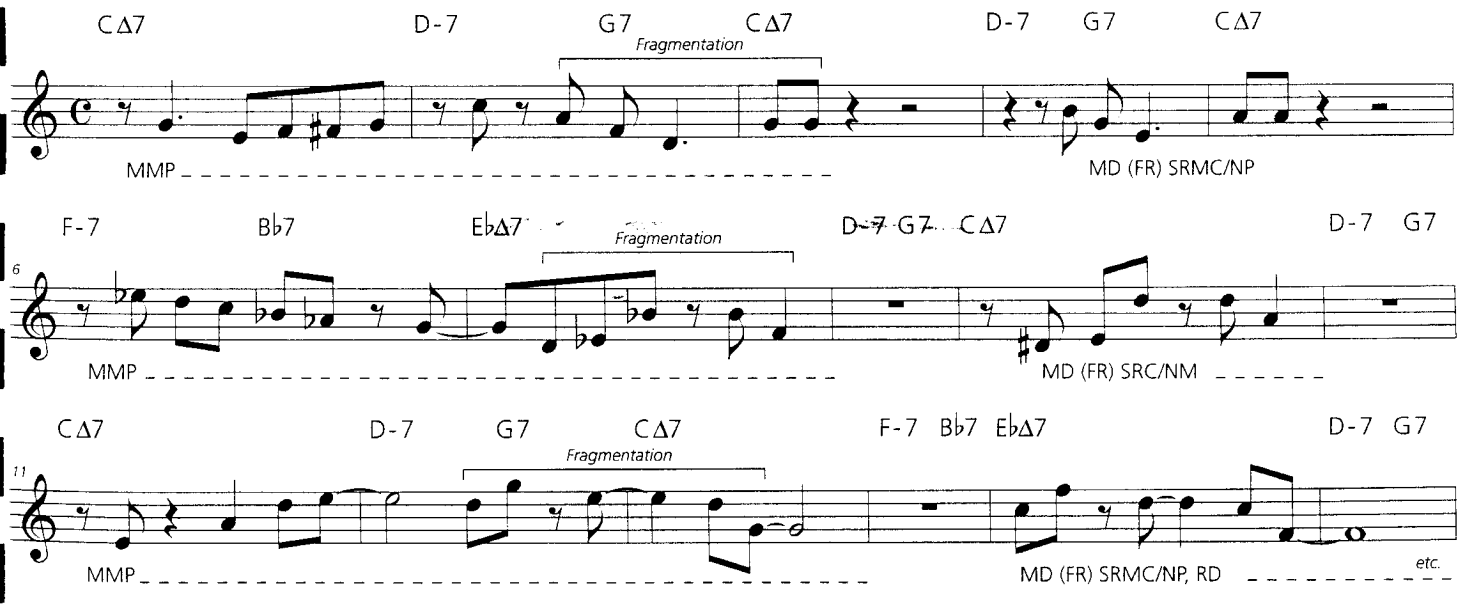
   b) rest (4-8 beats);

   c) play one development by repeating the rhythm of the last part only (i.e. the ending) of the previous motif or phrase while repeating or changing the melody notes or pitch level (melodic curve can be the same, similar, or new);

   d) rest;

   e) repeat a-d (above) throughout the solo using a different original motif each time.

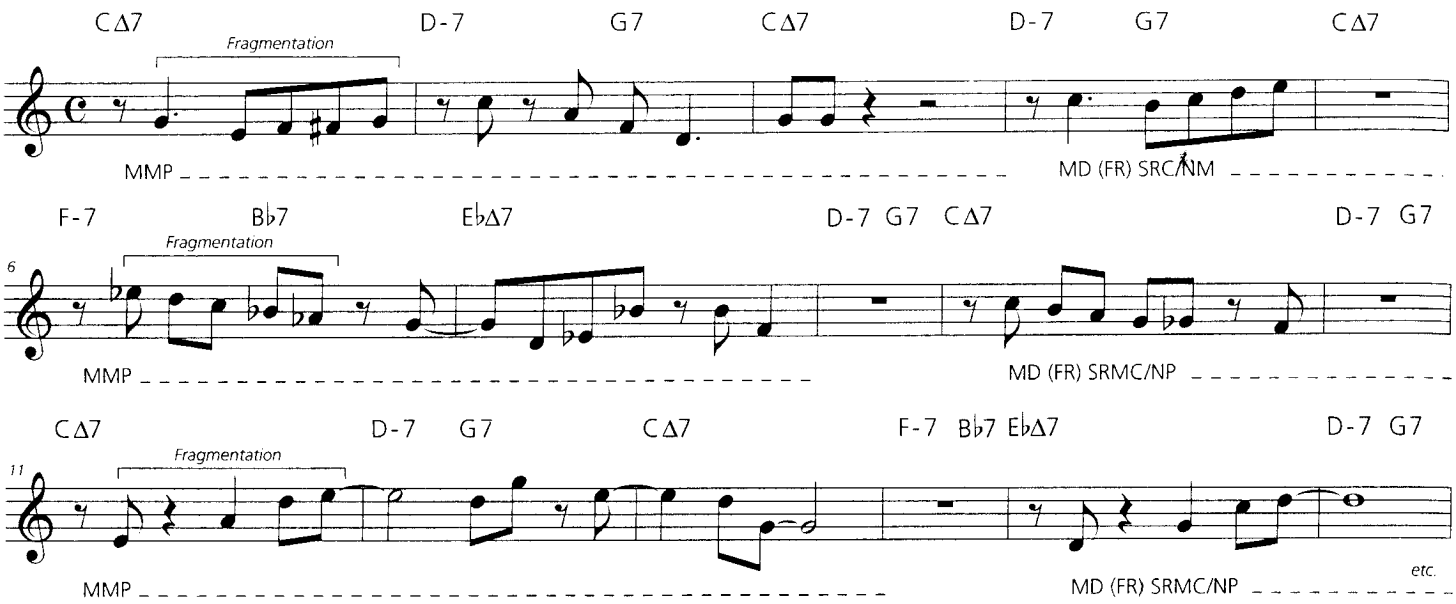
Example II:57R



Continue the above exercise form for several minutes at a time. Record the solo for critique.

2. Repeat the first exercise form using the rhythm of the first part only (i.e. the beginning) of the previous motif or phrase for each development.

Example II:58R



Fragmentation/Extension (FR/EX)

After selecting a harmonic setting, tempo, and mode of accompaniment, improvise as follows:

1. a) play a longer motif or multi-motif phrase containing "developable" characteristics (2-3 measures);

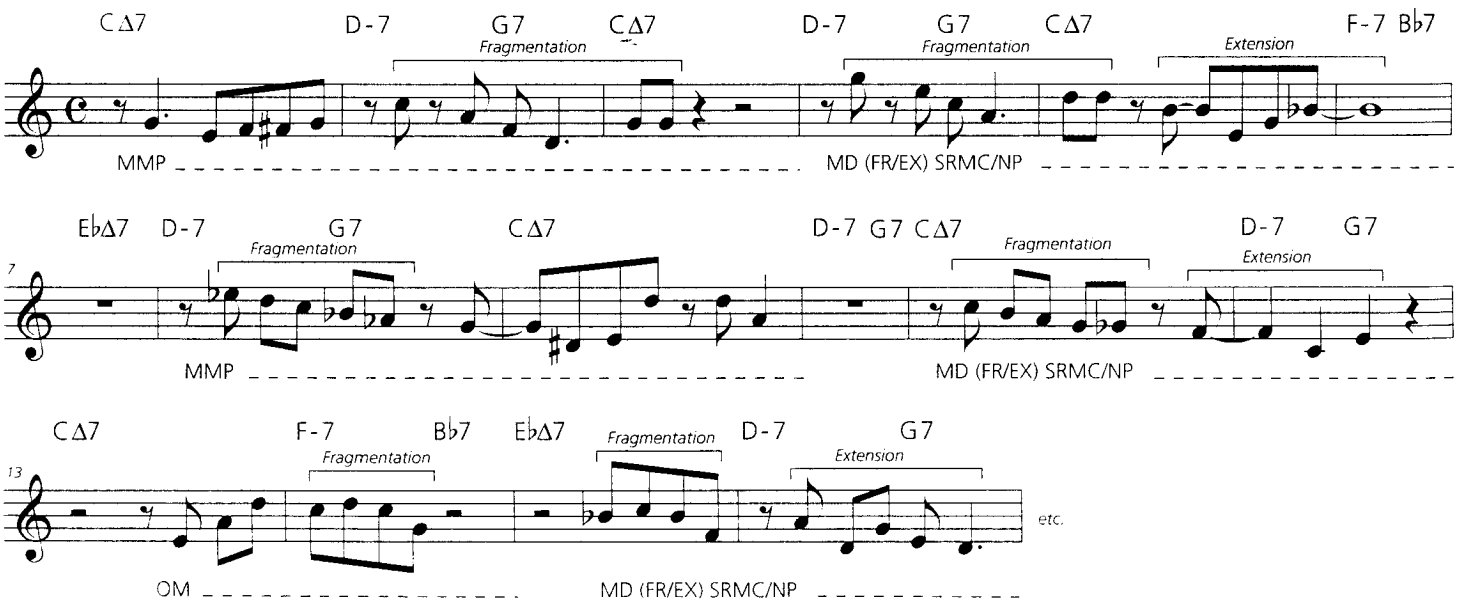
   b) rest;

   c) play one development by repeating the rhythm of a fragment from the beginning or ending of the previous motif or phrase (melody and melodic curve can be the same, similar, or new), then *immediately* add new material for X beats;

   d) rest;

   e) repeat a-d (above) througout the solo using a different motif each time.

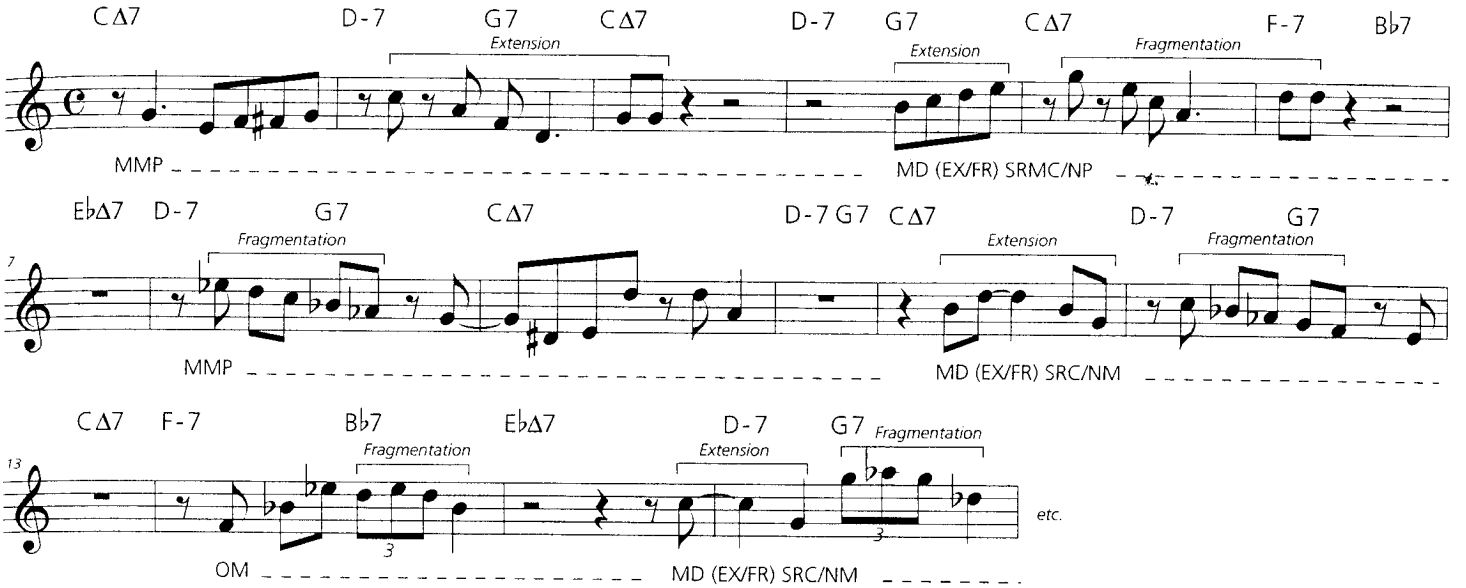
Example II:59R



Continue the above exercise form for several minutes at a time. Practice playing short, medium and long extensions. Record the solo for critique.

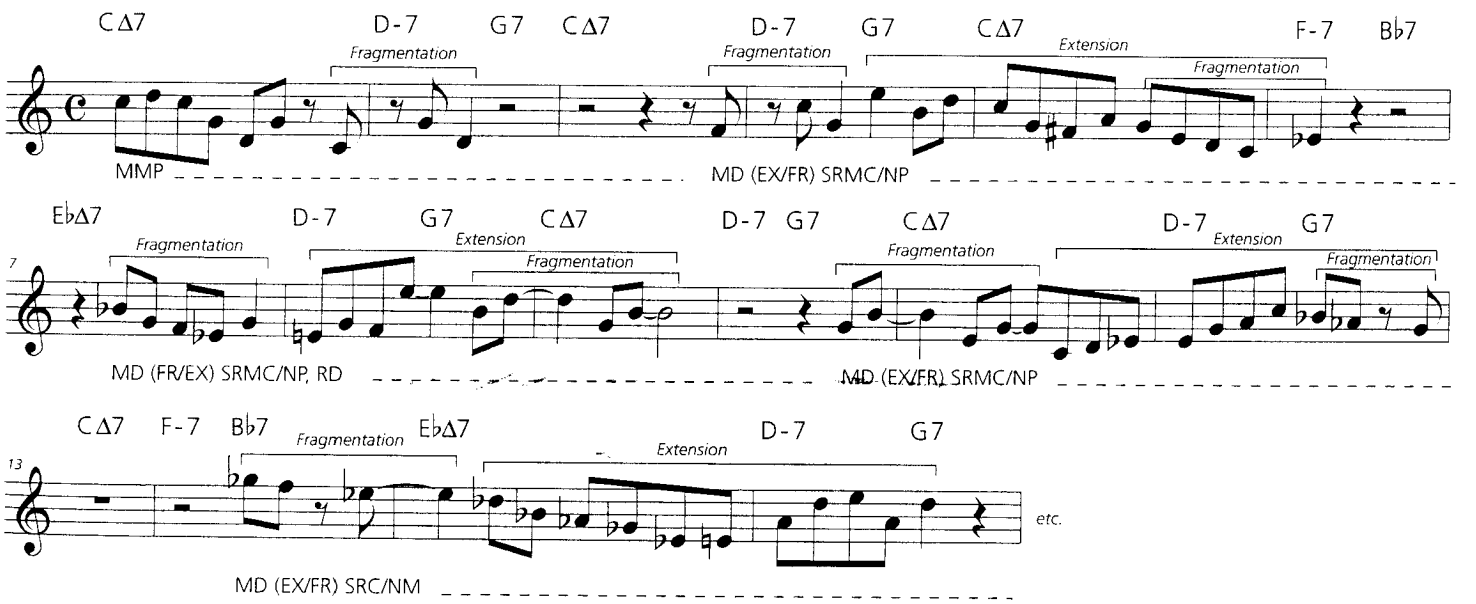
2. Repeat the first exercise form putting the extensions *before* the fragment, i.e. the new material immediately precedes the development rather than follows it.

Example II:60R



3. Repeat the first exercise form using the rhythm of fragments from the *end* of each extension (the new material) to begin the next development.

Example II:61R



Example: Daily Practice Schedule - Motif Development

1. 10 minutes on "Variation", exercise #1, using rhythm only.
2. 20 minutes on "Variation" exercises #1, 2, 3 and 4, using melody and rhythm.
3. 10 minutes on "Extension", exercise #1 using rhythm only.
4. 20 minutes on "Extension", exercises #1 and 2, using melody and rhythm.
5. 10 minutes on "Fragmentation", exercise #1, using rhythm only.
6. 20 minutes on "Fragmentation", exercises #1 and 2, using melody and rhythm.
7. 10 minutes on "Fragmentation/Extension", exercise #1, using rhythm only.
8. 20 minutes on "Fragmentation/Extension", exercises #1, 2 and 3, using melody and rhythm.

Rhythmic Displacement

The following abbreviations will be used for analyzing musical examples of rhythmic displacement:

OM - Original motif

MD - Motif development

RD - Rhythmic displacement

DB - Downbeat

UB - Upbeat

R - Rhythm

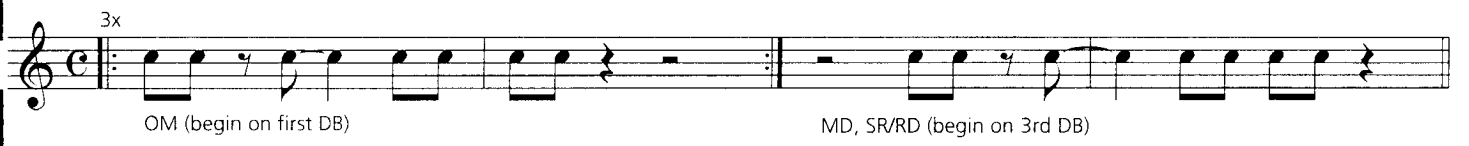
M - Melody

S - Same

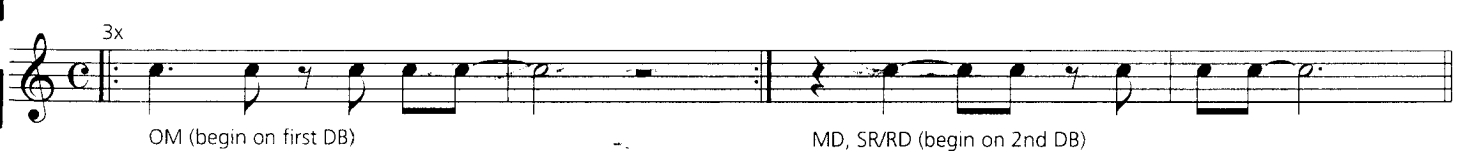
Rhythmic displacement occurs when the rhythm of a previous motif is repeated but starting on a different beat than the previous motif. For example, if the original motif begins on the 1st downbeat of a measure, the development would start on the 2nd, 3rd, or 4th downbeat (in 4/4 time) of a measure, and then duplicate the original motif's rhythmic attack points.

[Note: To create an exaggerated effect of rhythmic displacement in the following examples, repeat each original motif (OM) 3 times in a row in tempo, *then* play and compare the rhythmically displaced version.]

Examples III:1R



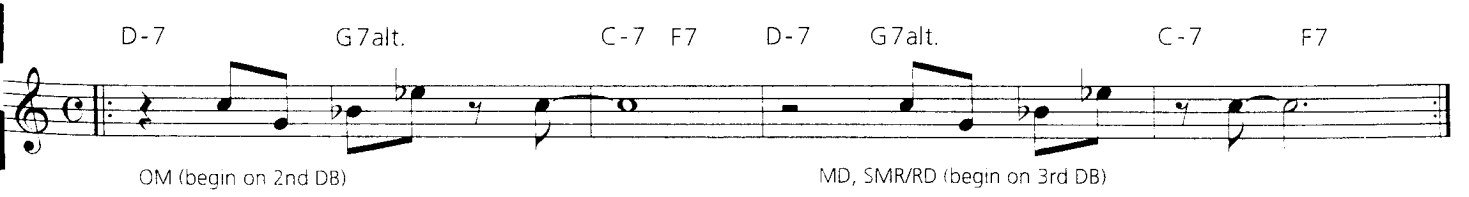
Example III:2R



Example III:3R

Displacing the rhythm of a previous motif (with or without changing the melody notes) is sufficient *alone* to create motif development, i.e. the rhythm and melody of a previous motif can be exactly the same in the development, but the development must begin on a different (or new) beat of the measure.

Example III:4R



There are 2 types of rhythmic displacement:

1. Symmetrical (balanced), and
2. Asymmetrical (less balanced)

Symmetrical displacement (in 4/4 time) means repeating the rhythm of a previous motif but starting it *two* full beats away from its original starting point in the measure. This produces a displaced yet somewhat balanced rhythmic effect.

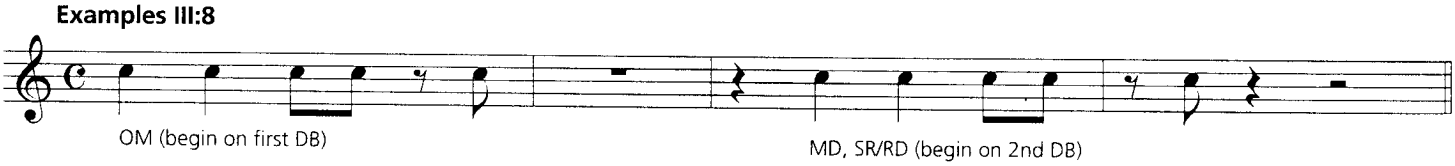
Examples III:5

Example III:6

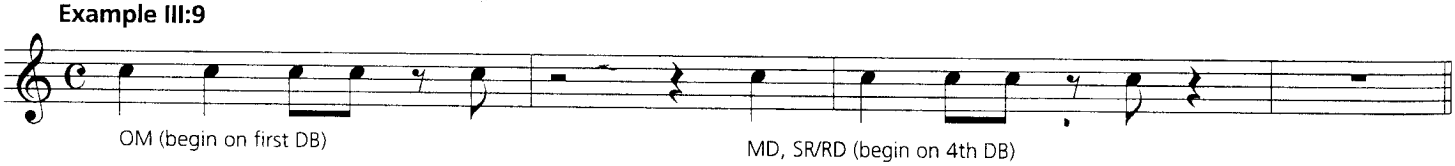
Example III:7

Asymmetrical displacement (in 4/4 time) means repeating the rhythm of a previous motif but starting it *one or three* full beats away from its original starting point in the measure. This produces a more displaced and less balanced rhythmic effect (compared to symmetrical displacement) and is normally more difficult to execute.

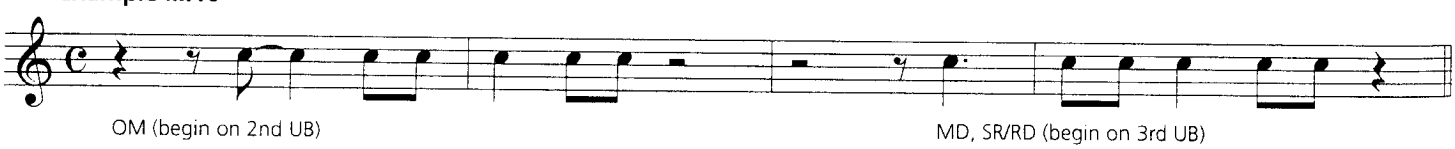
Examples III:8



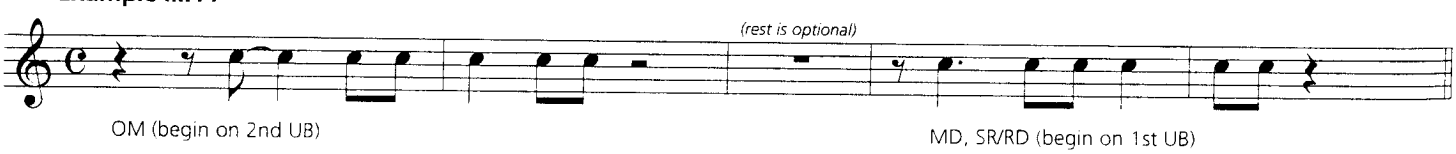
Example III:9



Example III:10

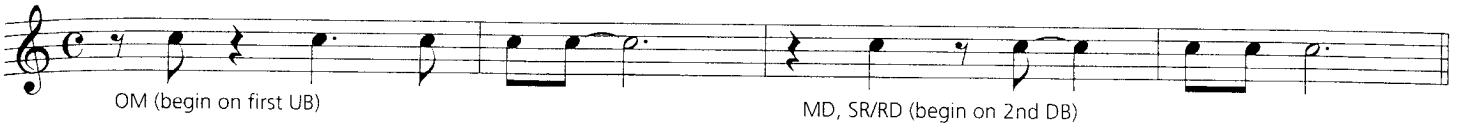


Example III:11

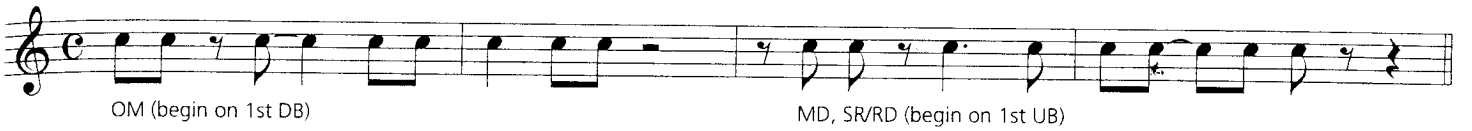


Displacing a rhythm by 1/2, 1-1/2, 2-1/2 beats, etc., is rather impractical for improvising (except with very short, simple rhythms) due to the difficulties of accurate execution. In addition, rhythms displaced by half-beats do not always sound related to the original rhythm and therefore do not make effective motif developments unless the melody or curve remains the same.

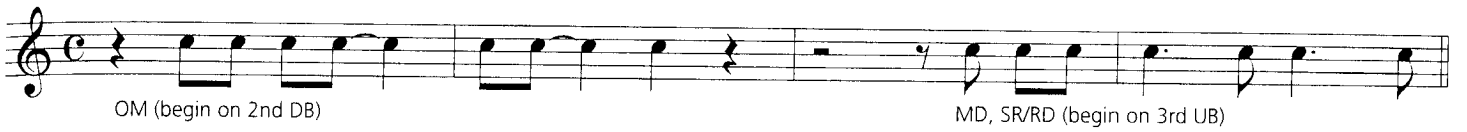
Example III:12



Example III:13



Example III:14



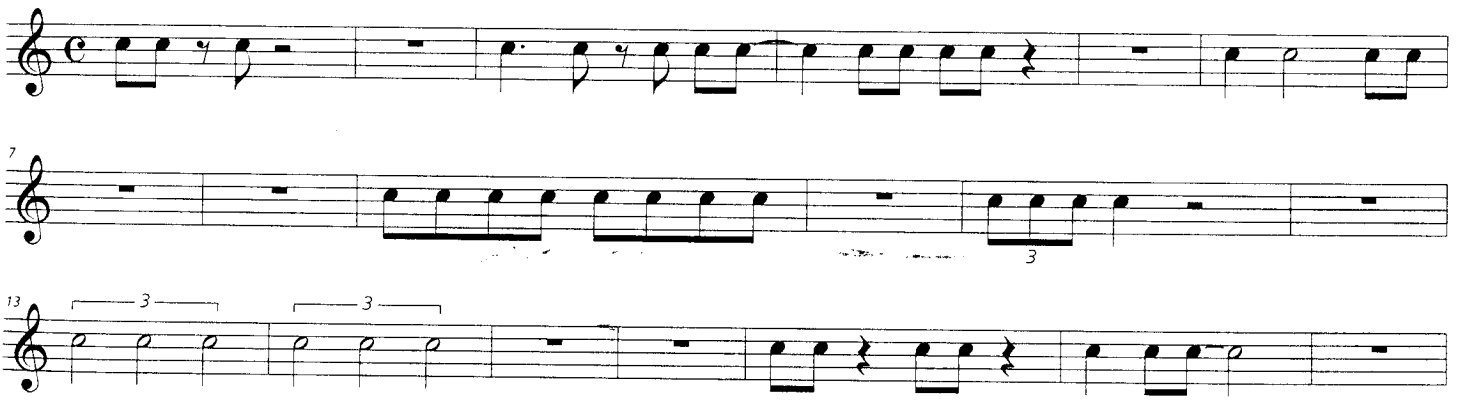
Before applying rhythmic displacement as a technique of motif development in a playing context, it is important to acquire the ability to begin motifs in specific places within the measure by "feel", versus by (mentally) counting the beats. This can be learned with the help of the following exercises.

Preparing for Rhythmic Displacement - Exercises #1 and 2

1. Using the play/rest approach, improvise in tempo with a single pitch (note) only, playing short contrasting rhythmic motifs. Throughout the solo, begin each idea on:

   a) the 1st downbeat of a measure

Example III:15



   b) the 2nd downbeat of a measure

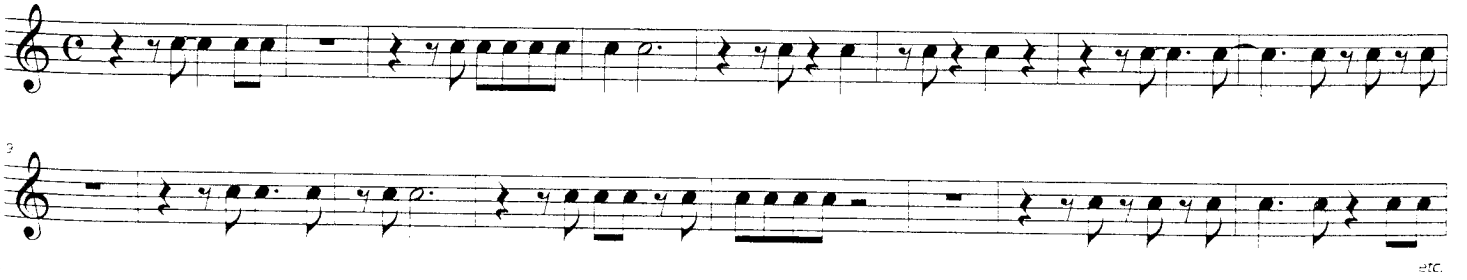
   c) the 3rd downbeat of a measure

   d) the 4th downbeat of a measure

   e) the 1st upbeat of a measure

   f) the 2nd upbeat of a measure

Example III:16



g) the 3rd upbeat of a measure

h) the 4th upbeat of a measure

The objective is to acquire a "feel" for starting ideas in specific places within the measure, e.g. the 2nd downbeat, the 4th upbeat, etc.

Continue each of the above exercises (starting different ideas in the same place within a measure) for several minutes at a time.

2. Select a harmonic setting, tempo and mode of accompaniment. Improvise with melody and rhythm using the play rest approach. Throughout the solo, begin each idea on:

   a) the 1st downbeat of a measure

   b) the 2nd downbeat of a measure

   c) the 3rd downbeat of a measure

   d) the 4th downbeat of a measure

   e) the 1st upbeat of a measure

   f) the 2nd upbeat of a measure

   g) the 3rd upbeat of a measure

   h) the 4th upbeat of a measure

Symmetrical Rhythmic Displacement, Exercises #1-9

[Note: The following exercises should first be practiced using a single pitch (note) and rhythm only, i.e. no melody or harmonic setting, with metronome accompaniment.]

Select a harmonic setting, tempo and mode of accompaniment. Using the play/rest approach, improvise throughout the solo as follows:

1. a) play a short (rhythmically simple) motif starting on the 1st downbeat of a measure;

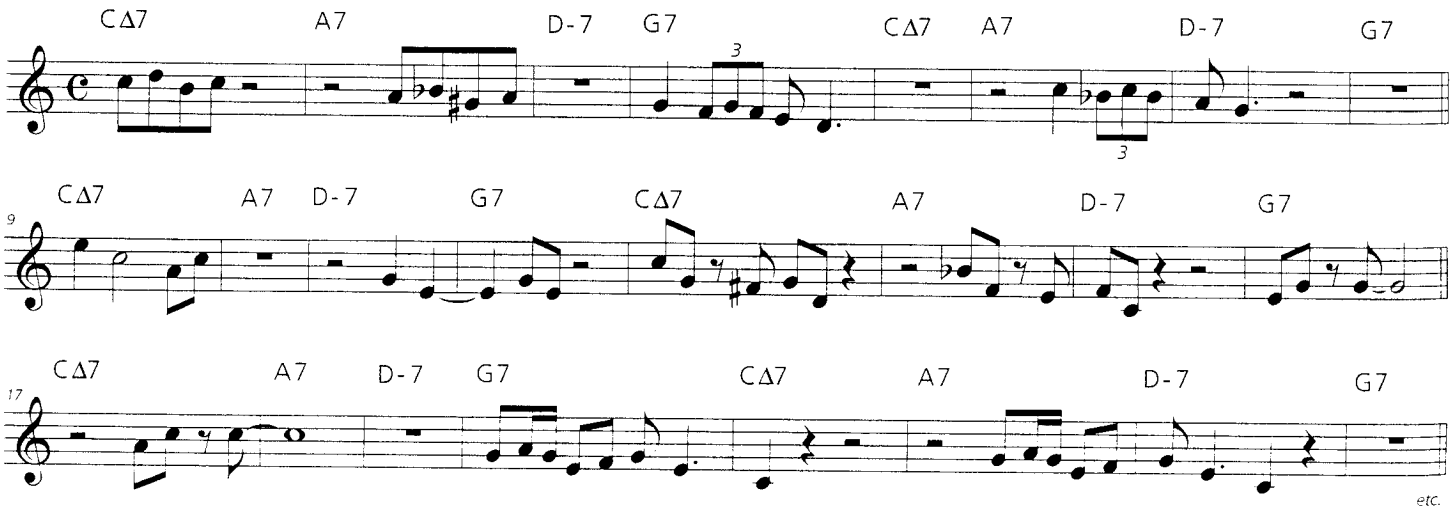
   b) rest (4-8 beats);

   c) play a development by repeating the rhythm of the previous motif but starting on the 3rd downbeat of a measure (melody may repeat or change);

   d) rest;

   e) repeat a-d (above) throughout the solo using a different original motif each time.

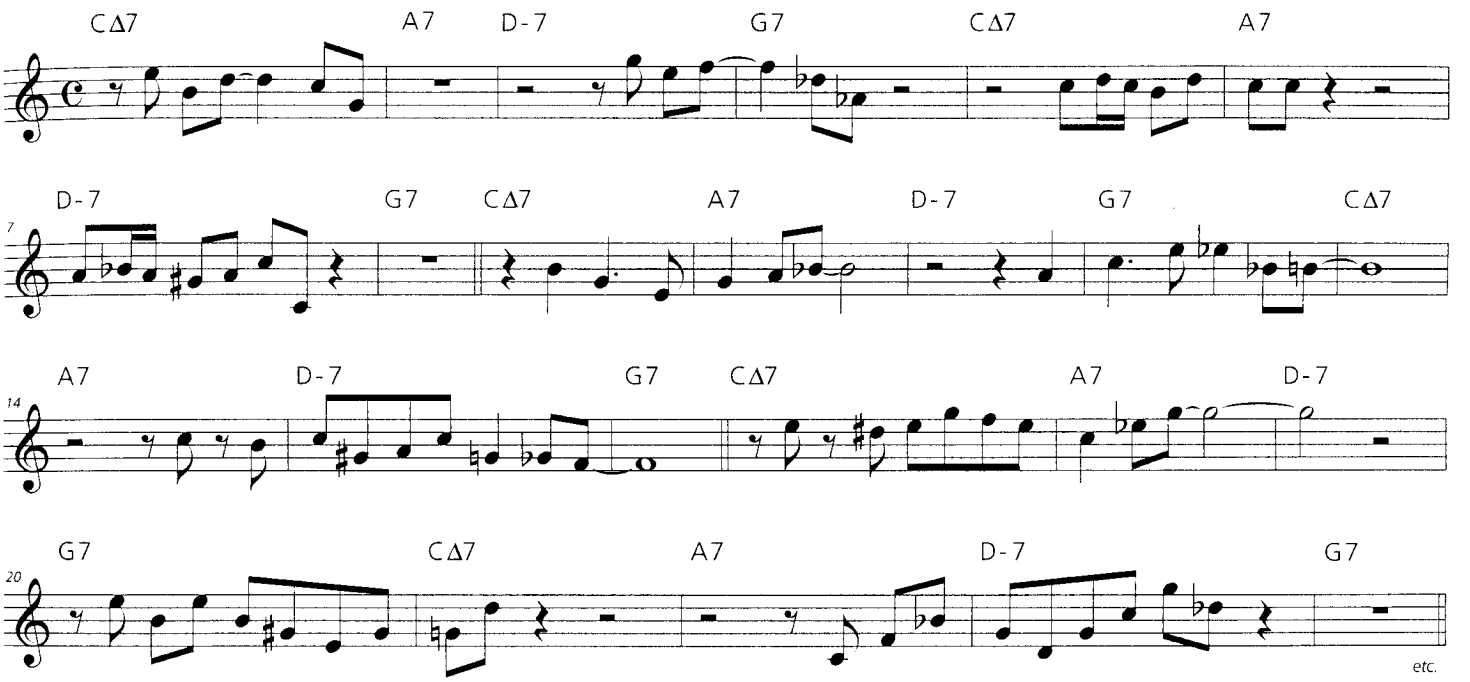
Example III:17R



[Note: The form of exercise #1 applies to exercises #2-9 also. Continue each exercise for several minutes at a time.]

2. Start a motif on the 2nd downbeat of a measure, repeat its rhythm starting on the 4th downbeat of a measure. Continue throughout solo.
3. Start a motif on the 3rd downbeat of a measure, repeat its rhythm starting on the 1st downbeat of a measure. Continue throughout solo.
4. Start a motif on the 4th downbeat of a measure, repeat its rhythm starting on the 2nd downbeat of a measure. Continue throughout solo.
5 - 8. Repeat exercises #1-4 (above) replacing downbeat starts with upbeat starts.
9. Start a motif on any downbeat or upbeat within a measure. Repeat its rhythm starting two full beats away from the original motif's starting place. (For example, if an original motif begins on the 3rd upbeat of a measure, the development must begin on the 1st upbeat of a measure.

Example III:18R



Example: Daily Practice Schedule - Symmetrical Rhythmic Displacement

1. 30 minutes on preparing for rhythmic displacement, exercises #1 and 2.
2. 20 minutes on symmetrical rhythmic displacement using a single pitch and rhythm only, choose from exercises #1-8.
3. 40 minutes on symmetrical displacement using melody and rhythm (in harmonic settings), choose from exercises #1-8.
4. 15 minutes on symmetrical displacement using a single pitch and rhythm only, exercise #9,
5. 15 minutes on symmetrical displacement using melody and rhythm (in harmonic settings), exercise #9.

Asymmetrical Rhythmic Displacement, Exercises #1-17

[Note: The following exercises should first be practiced using a single pitch (note) and rhythm only, i.e. no melody or harmonic setting, with metronome accompaniment.]

Select a harmonic setting, tempo and mode of accompaniment. Using the play/rest approach, improvise throughout the solo as follows:

1. a) play a short (rhythmically simple) motif starting on the 1st downbeat of a measure;

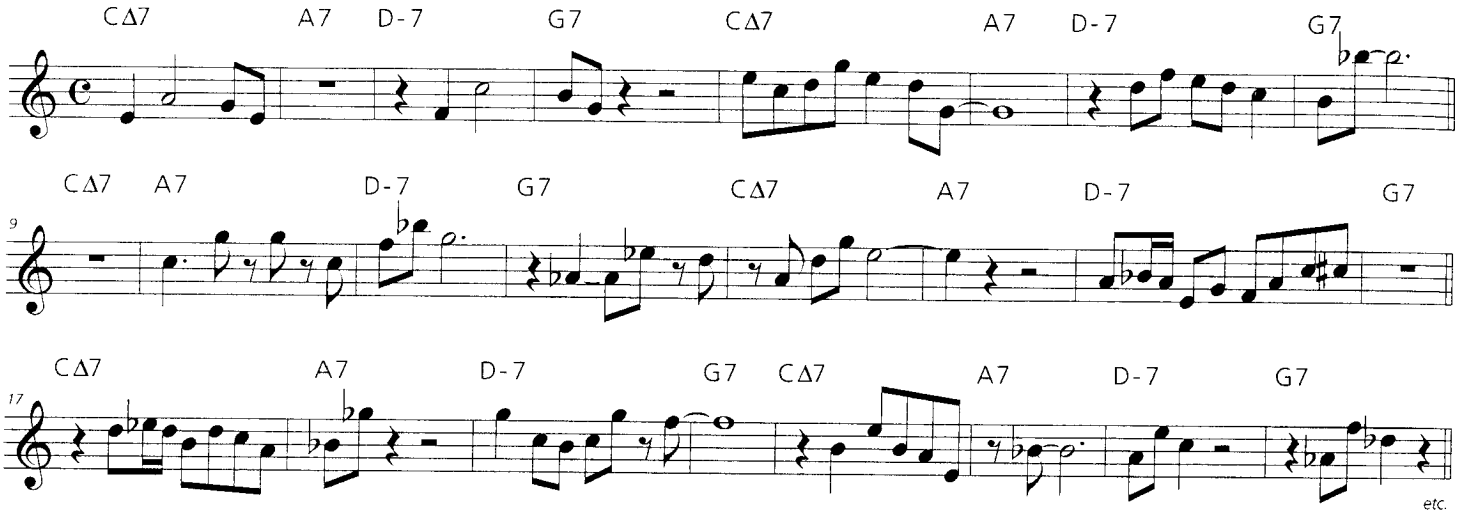
   b) rest (4-8 beats);

   c) play a development by repeating the rhythm of the previous motif but starting on the 2nd downbeat of a measure (melody may repeat or change);

   d) rest;

   e) repeat a-d (above) throughot the solo using a different original motif each time.

Example III:19R



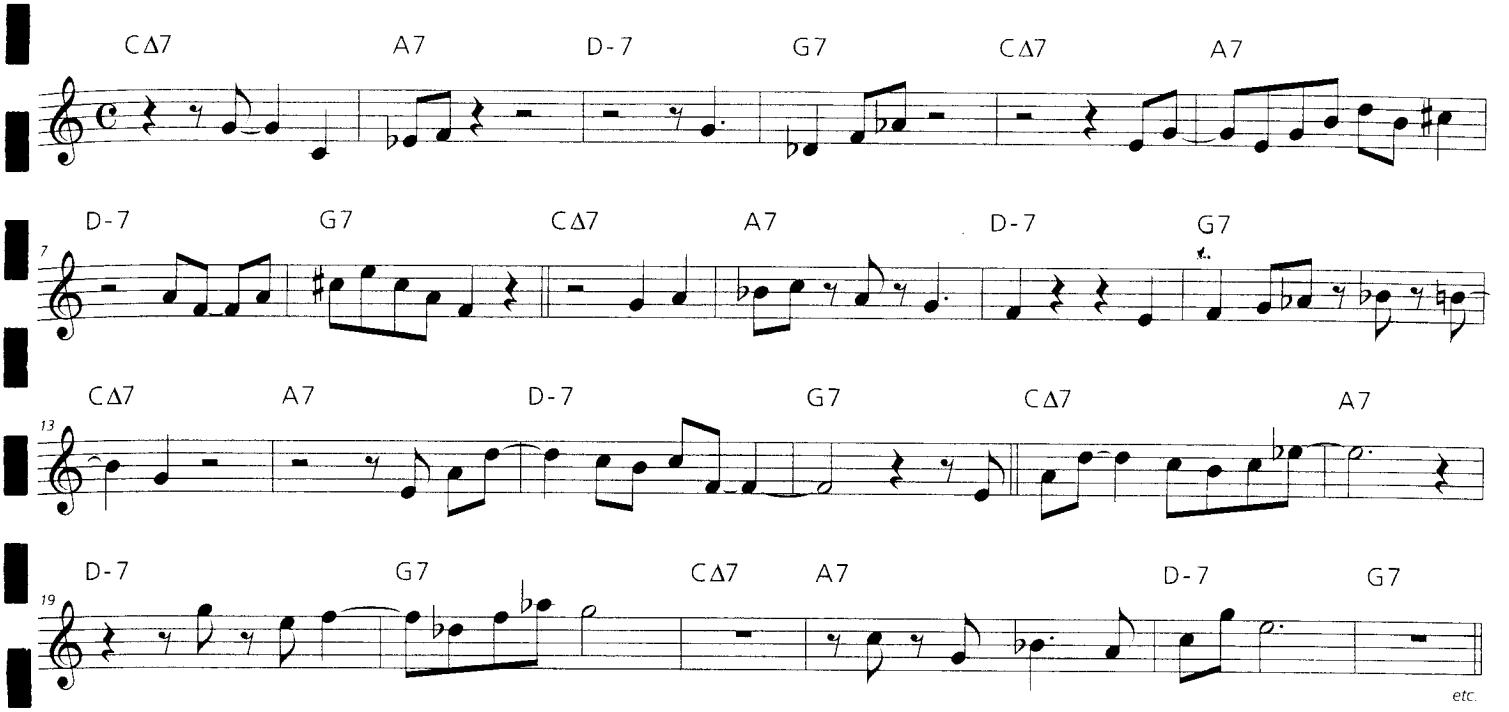
[Note: The form of exercise #1 applies to exercises #2-16 also. Continue each exercise for several minutes at a time.]

2. Start a motif on the 1st downbeat of a measure, repeat its rhythm starting on the 4th downbeat of a measure. Continue throughout solo.
3. Start a motif on the 2nd downbeat of a measure, repeat its rhythm starting on the 3rd downbeat of a measure. Continue throughout solo.
4. Start a motif on the 2nd downbeat of a measure, repeat its rhythm on the 1st downbeat of a measure.
5. Start a motif on the 3rd downbeat of a measure, repeat its rhythm on the 4th downbeat of a measure.
6. Start a motif on the 3rd downbeat of a measure, repeat its rhythm on the 2nd downbeat of a measure.
7. Start a motif on the 4th downbeat of a measure, repeat its rhythm on the 1st downbeat of a measure.
8. Start a motif on the 4th downbeat of a measure, repeat its rhythm on the 3rd downbeat of a measure.

9 -16. Repeat exercises #1-8 (above) replacing downbeat starts with upbeat starts.

17. Start a motif on any downbeat or upbeat within a measure. Repeat its rhythm starting one or three full beats away from the original motif's starting place. (For example, if the original motif begins on the 3rd upbeat of a measure, the development must begin on either the 4th or 2nd upbeat of a measure.)

Example III:20R



Example: Daily Practice Schedule - Asymmetrical Rhythmic Displacement

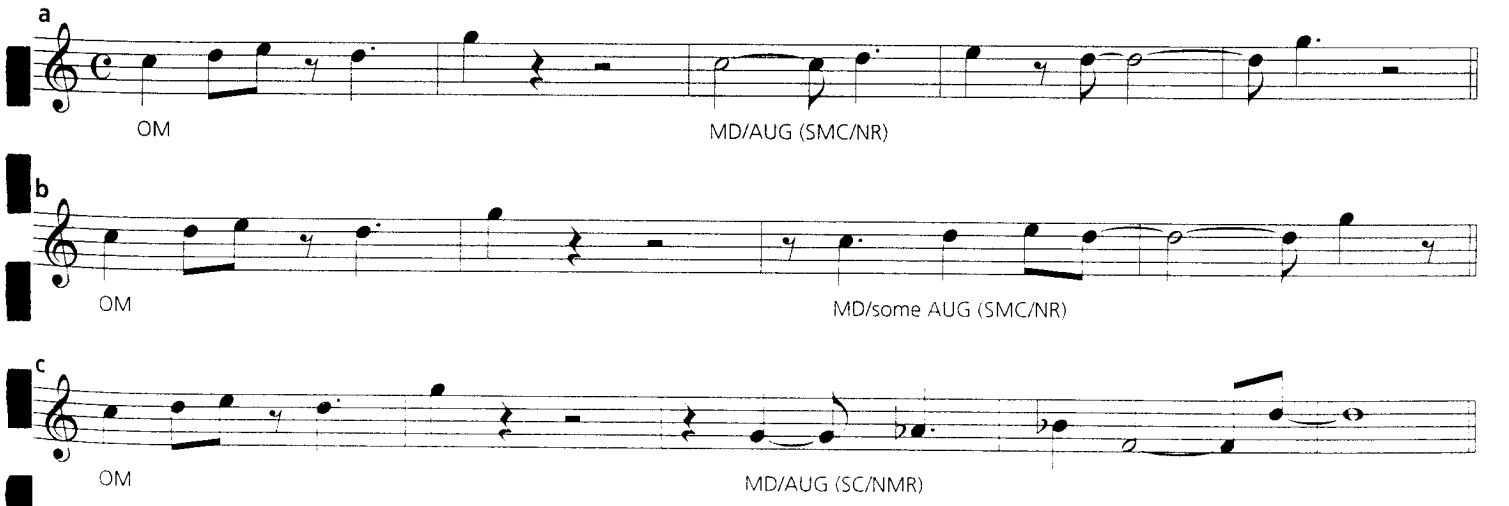
1. 30 minutes on preparing for rhythmic displacement, exercises #1 and 2.
2. 20 minutes on asymmetrical rhythmic displacement using a single pitch and rhythm only, choose from exercises #1-16.
3. 40 minutes on asymmetrical displacement using melody and rhythm (in harmonic settings), choose from exercises #1-16.
4. 15 minutes on asymmetrical displacement using a single pitch and rhythm only, exercise #17.
5. 15 minutes on asymmetrical displacement using melody and rhythm (in harmonic settings), exercise #17.

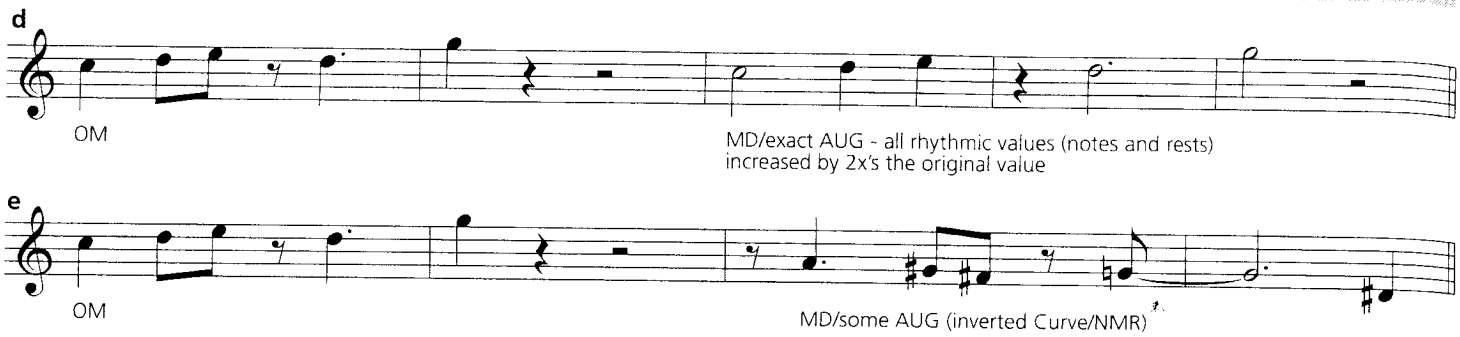
Augmentation/Diminution

Augmentation - A form of motif development using rhythmic embellishment where all (or most) of the note values of a motif are expanded or increased by a noticeable amount in a subsequent motif. The melody notes and melodic curve usually stay the same, but may change.

[Note: Drummers should use *concerted* drum and cymbal attacks to execute *sustained* notes (i. e. letting the cymbal ring), and drum attacks only to execute short notes.]

Example III:21





Augmentation, Exercises #1 and 2

1. Improvise in tempo with metronome accompaniment using a single pitch and rhythm only (i.e. no melody or chords) as follows:

   a) play a short rhythm motif using few notes of relatively short rhythmic value, e.g. ♪'s, ♩'s etc.

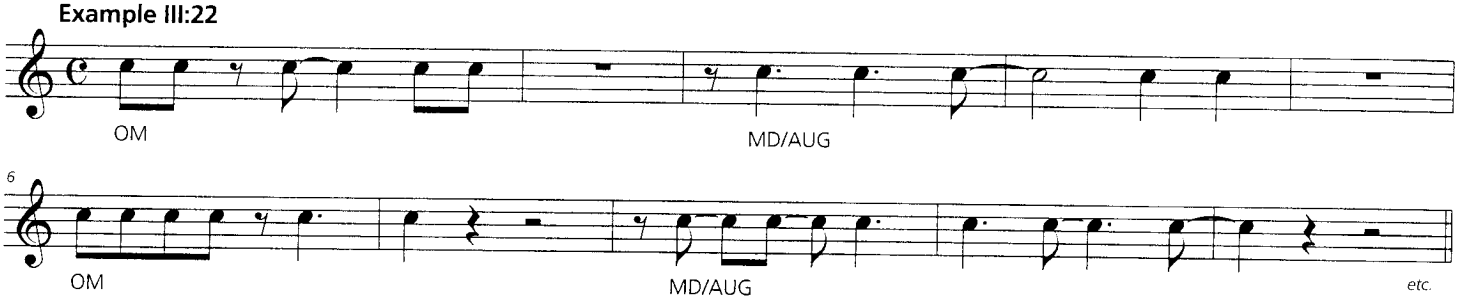
   b) rest;

   c) play a development by expanding all (or most) of the note values of the previous motif by a noticeable amount, e.g. ♪'s become ♩'s or ♩.'s or 𝅗𝅥's;

   d) rest;

   e) repeat a-d throughout the solo using a different rhythm motif each time.

Example III:22



2. Select a harmonic setting, tempo and mode of accompaniment. Improvise (using rhythm and melody) as follows:

   a) play a short motif using few notes of relatively short rhythmic value, e.g. ♪'s, ♩'s, etc.;

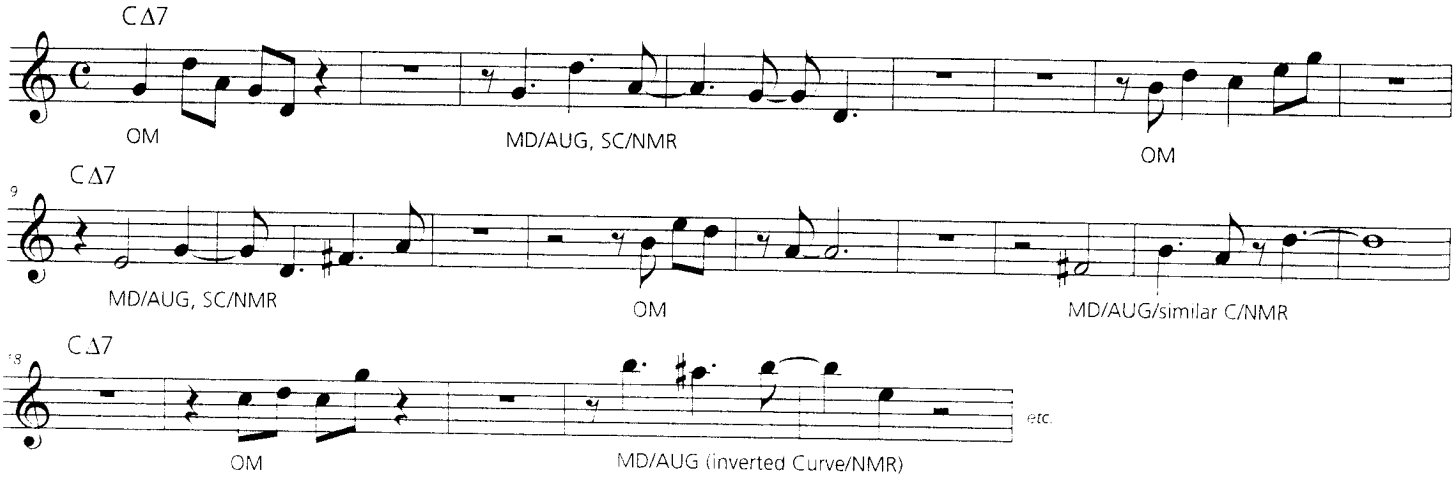
   b) rest;

   c) play a development by expanding all (or most) of the note values of the previous idea by a noticeable amount (melody notes and melodic curve may repeat or change);

   d) rest;

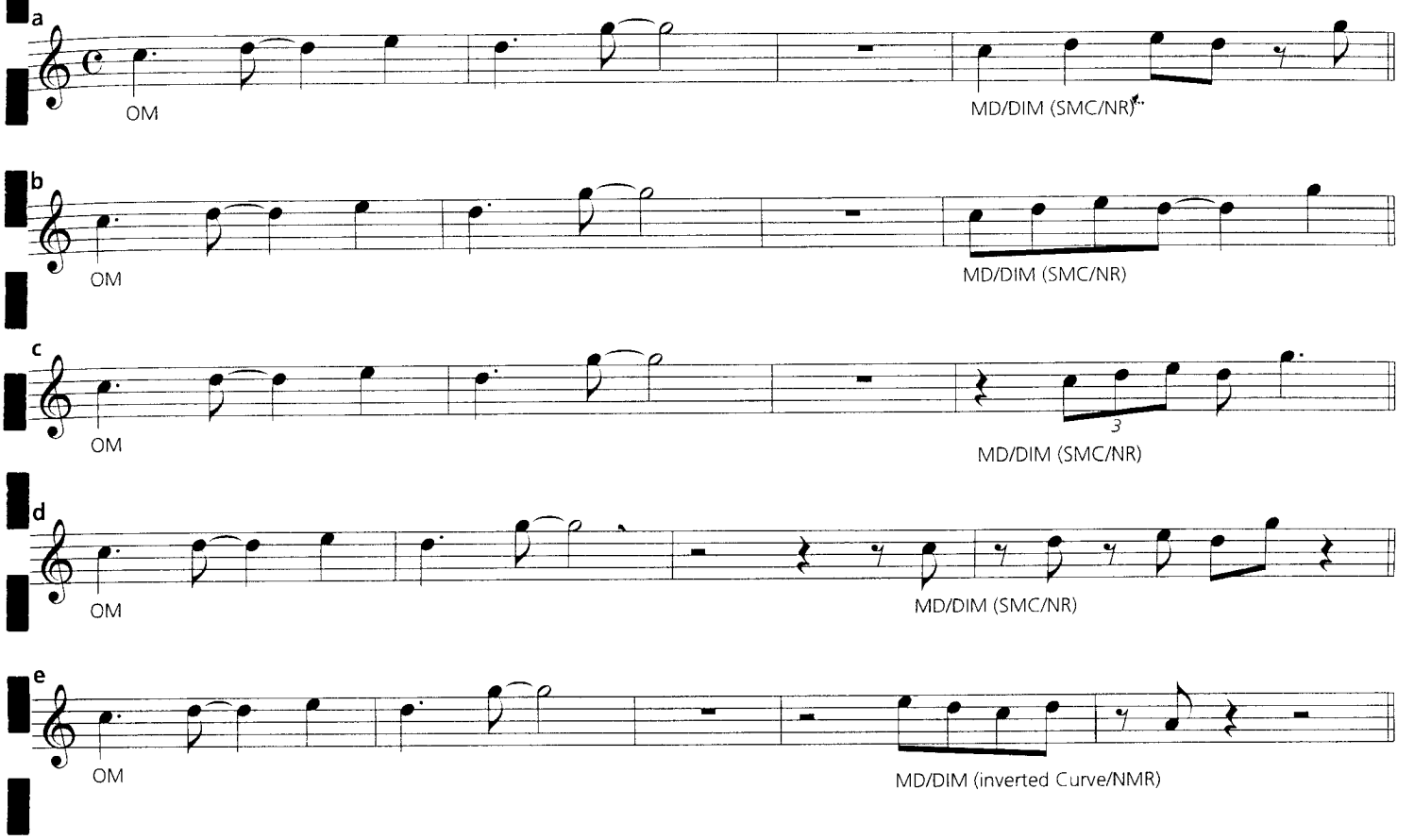
   e) repeat a-d throughout the solo using a different motif each time.

Example III:23R



Diminution - A form of motif development using rhythmic embellishment where all (or most) of the note values of a motif are contracted or decreased by a noticeable amount in a subsequent motif. The melody notes and melodic curve usually stay the same, but may change.

Example III:24



Diminution, Exercises #1 and 2

1. Improvise in tempo with metronome accompaniment using a single pitch and rhythm only (i.e. no melody or chords) as follows:

   a) play a rhythm motif using few notes of relatively long rhythmic value, e.g. ♩'s, ♩.'s, 𝅗𝅥's, etc.;

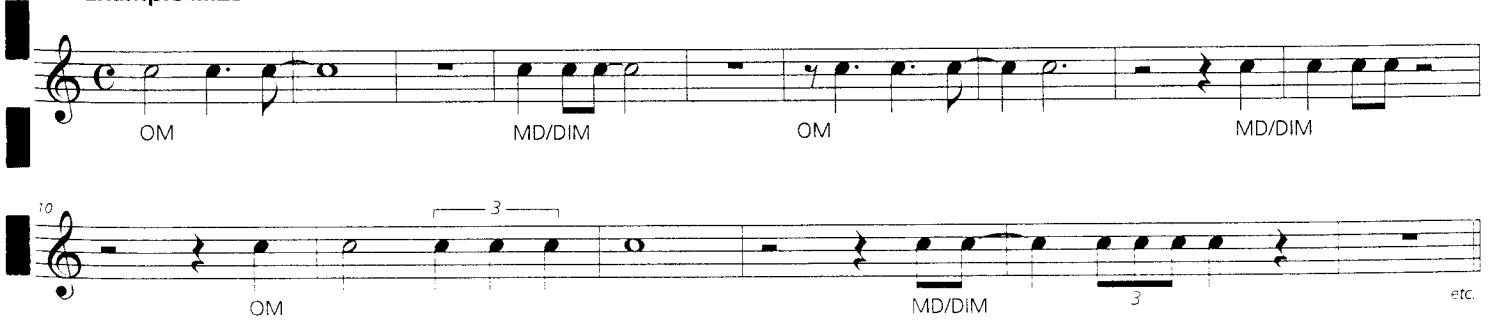
   b) rest;

   c) play a development by contracting all (or most) of the note values of the previous motif by a noticeable amount, e.g. 𝅗𝅥's become ♩.'s or ♩'s or ♪'s;

   d) rest;

   e) repeat a-d throughout the solo using a different rhythm motif each time.

Example III:25



2. Select a harmonic setting, tempo and mode of accompaniment. Improvise (using rhythm and melody) as follows:

   a) play a motif using few notes of relatively long rhythmic value, e.g. 𝅗𝅥's, 𝅗𝅥.'s, 𝅗𝅥𝅗𝅥's, etc.;

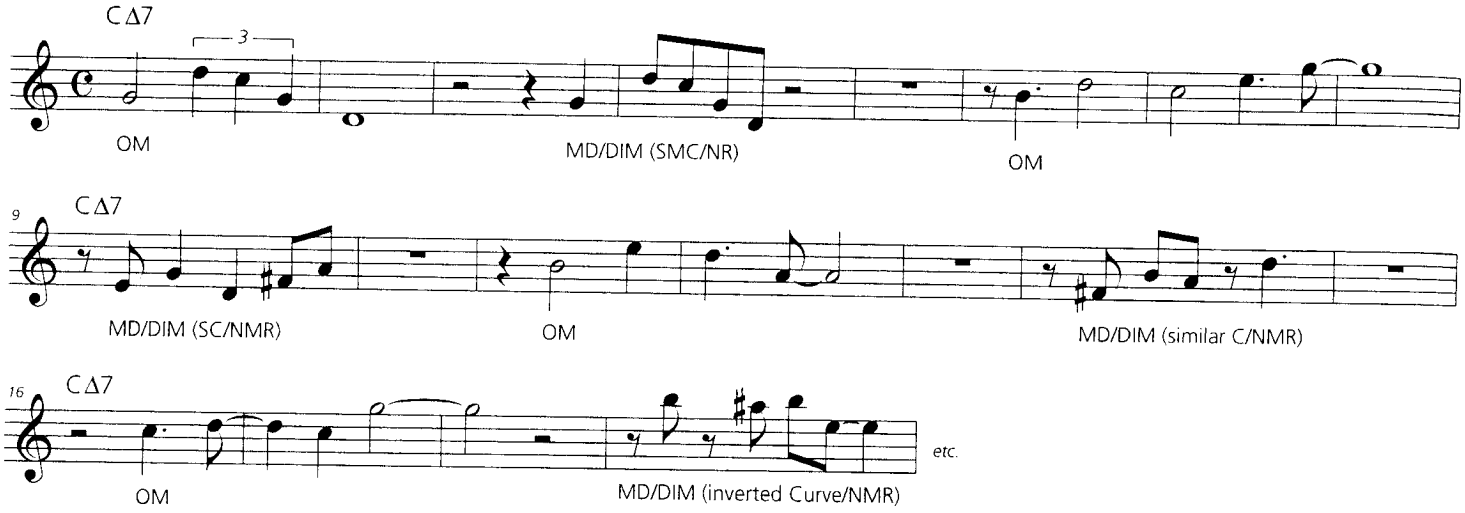
   b) rest;

   c) play a development by contracting all (or most) of the note values of the previous idea by a noticeable amount (melody notes and melodic curve may repeat or change);

   d) rest;

   e) repeat a-d throughout the solo using a different motif each time.

Example III:26R



Example: Daily Practice Schedule, Augmentation/Diminution

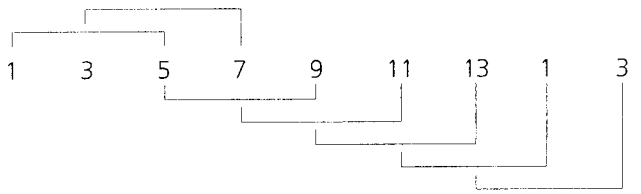
1. 10 minutes on Augmentation, exercise #1.
2. 30 minutes on Augmentation, exercise #2.
3. 10 minutes on Diminution, exercise #1.
4. 30 minutes on Diminution, exercise #2.
5. 10 minutes on the spirit and mood of the music.

Upper Structure Triads (UST)

An upper structure triad is any major, minor, augmented or diminished triad which is comprised of chord sound (chord tones and allowable tensions) from the chord scale, but which must contain at least one *allowable* tension, e.g. G major triad on a C major 7 chord: G is the 5th (chord tone) of C major 7; B is the M7 (chord tone) of C major 7; and D is the M9 (allowable tension) of C major 7.

The upper structure triads of *most* chord scales can be formed by arranging the scale notes in ascending order from the root by diatonic 3rds:

Lower Structure Triads *(chord tones only)*

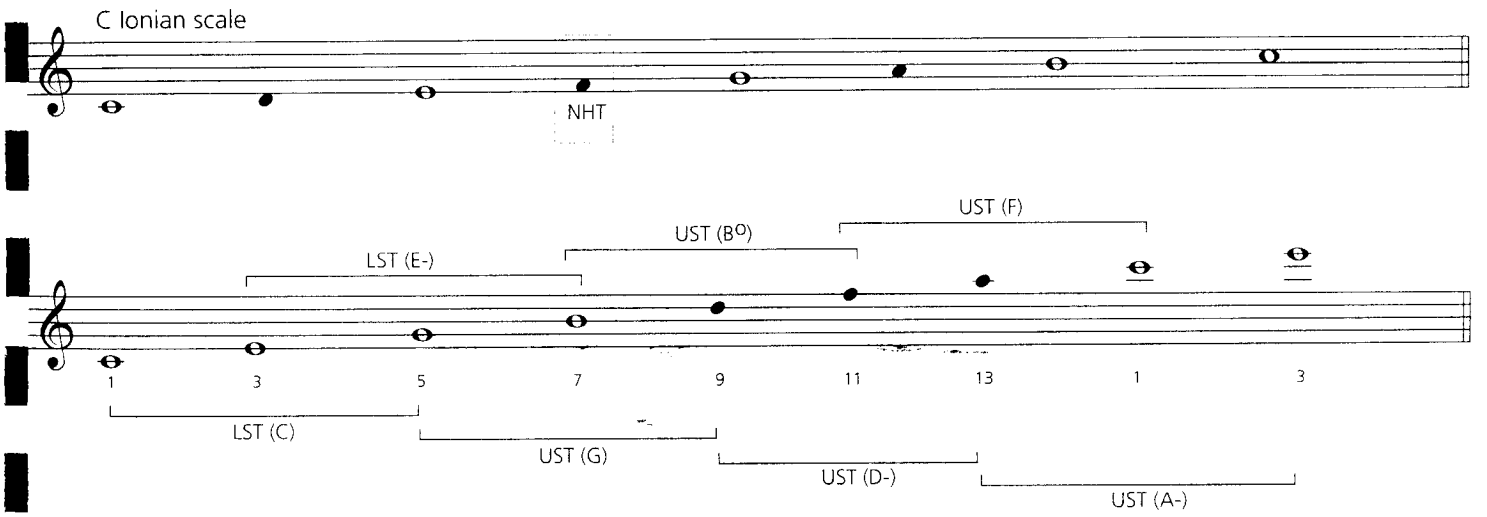


Upper Structure Triads *(must contain at least 1 allowable tension)*

[Note: Triads which contain non-harmonic (yet diatonic) tones are not generally used as upper structure triads.]

With the C Ionian scale, the triads formed in this manner are: C, E-, G, B°, D-, F, and A-. The lower structure triads are: C and E-. The (allowable) upper structure triads are: G and A-. [B°, F and D- contain a non-harmonic note of the scale, F(♮11), and so *for now* are not used.]

Example III:27



When a choice exists between available major, minor, diminished or augmented upper structure triads, major is usually the preferable one due to the brightness and clarity of the major chord. (Other tonalities, however, are certainly okay to use when they're available.)

The "whole step/half step" and "half step/whole step" symmetrical scales require a "search for it" approach to discover all the possible upper structure triads due to the particular interval configurations of the scales themselves. (See chart, Page 106)

Following is a chart containing the conventional 4-part chord types together with their common chord scales and the more popular upper structure triads.

Chord Type	Chord Scale	Popular Upper Structure Triads
1. Major 7/Major 6	Ionian	V
	Lydian	II, V, VII-
2. Dominant 7 sus 4	Mixolydian sus 4	I, II-, IV, VI-, ♭VII
3. Dominant 7	Mixolydian	V-, VI-, (♭VII)
	Lydian -7	II, ♭VII+
	Altered	♭V, ♭VI, ♭II-, ♭III-
	1/2, 1	♭III, ♭V, VI
	Whole Tone	II+
	Mixolydian -9, -13	♭II-, III+
4. Minor 6, Minor/Major 7	Melodic Minor (ascending)	II-, ♭III+, IV, V
Minor/Major 7	Harmonic Minor	V
5. Minor 7	Dorian	II-, IV, V-, ♭VII
	Aeolian	V-, ♭VII
	Phrygian	♭VI, (♭II)
6. Minor 7♭5	Locrian	♭VI, (♭II), (♭V)
	Locrian ♮9	♭VI, ♭VII
7. Diminished 7	1, 1/2	II, IV, ♭VI, VII
8. Augmented/Major 7	Lydian/Augmented (melodic min.)	VII-, (II)
	Ionian/Augmented (harm. min.)	V

[Note: Upper structure triads in parentheses are sometimes used even though they contain a non-harmonic tone from the scale.]

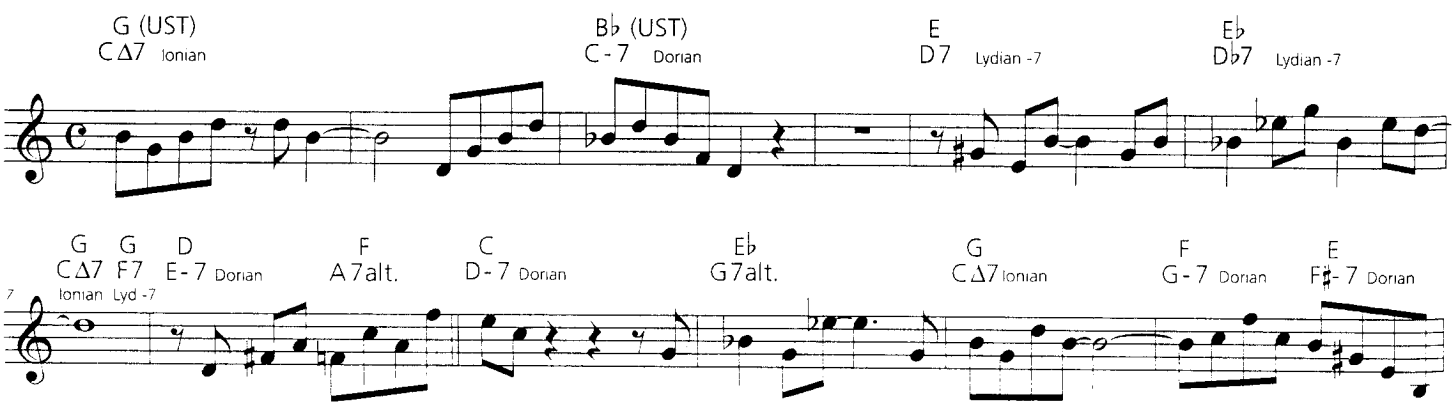
Practicing Triads

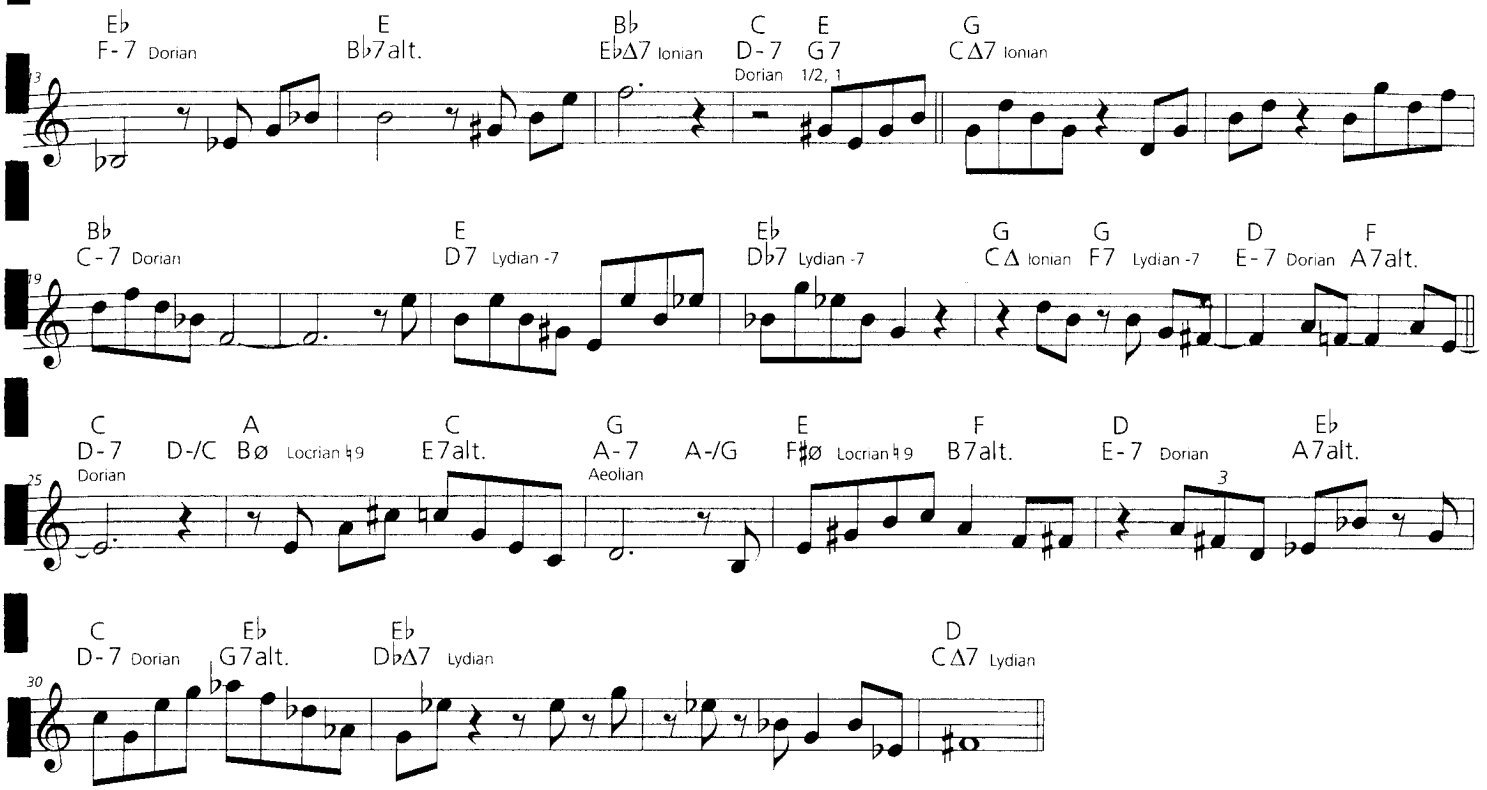
Use suggested exercises in Section II, "Lower Structure Triads", see pages 72-75.

Soloing With Upper Structure Triads

Use suggested exercises in Section II, "Lower Structure Triads" (see pages 76-78), changing lower structure triads to upper structure triads. *Be sure to first assign chord scales to chords in progressions, then select an appropriate upper structure triad for soloing.*

Example III:28R

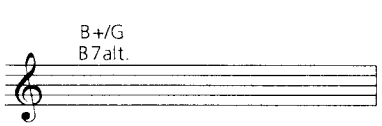




Soloing Combining Lower Structure Triads with Upper Structure Triads, Exercises #1 and 2

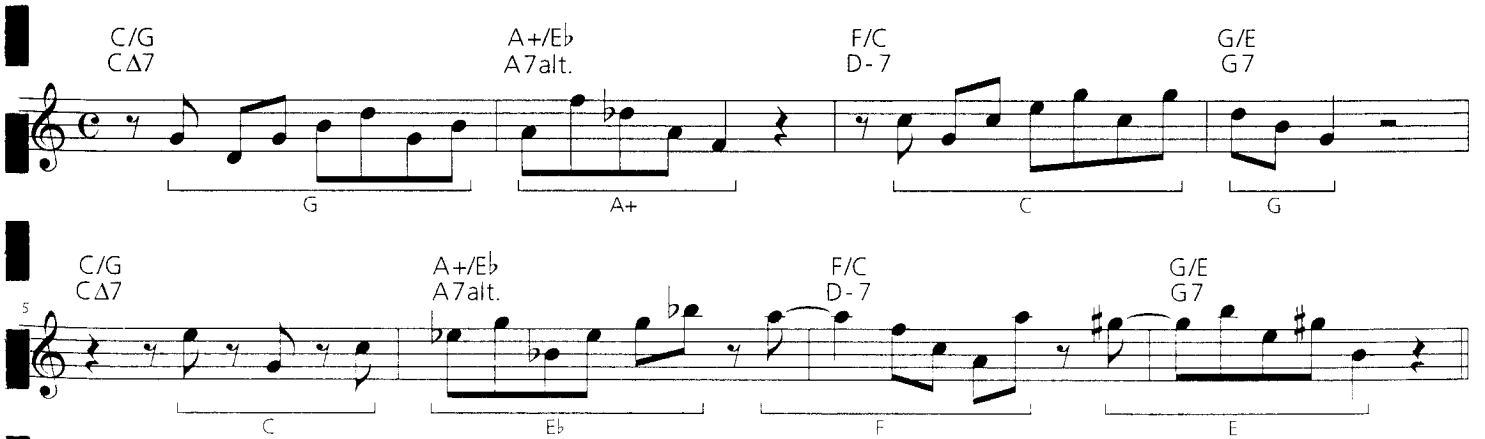
Write out a tune progression putting chord symbols above the stave. Select one lower structure triad per chord and write it above the chord symbol. Select one upper structure triad per chord and write it above the chord symbol with a slash to separate the lower structure triad from the upper structure triad.

E.G.



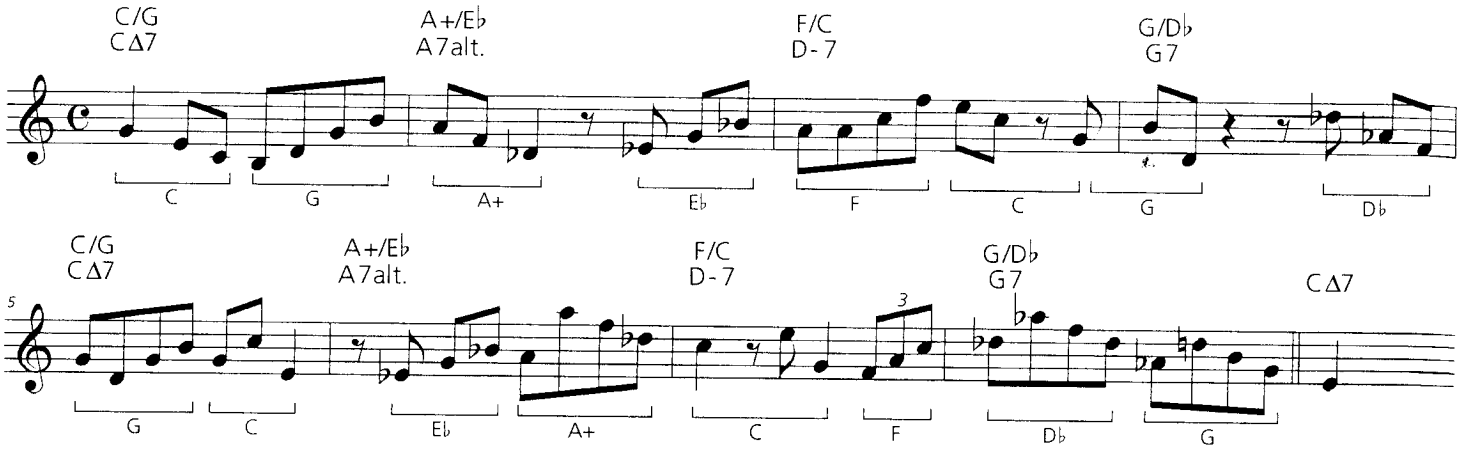
1. Using the play/rest approach, improvise using only the notes of the triads, rotate between lower structure triads and upper structure triads, i.e. play one lower structure triad then one upper structure triad, etc. throughout the progression. Reverse the order and repeat. Or, simply choose from the triads at random to play while soloing.

Example III:29R



2. Using the play/rest approach, improvise using first the notes of the lower structure triad, then the upper structure triad, all in the same measure on chords of 4 beats duration or more.

Example III:30R



Example: Daily Practice Schedule, Upper Structure Triads

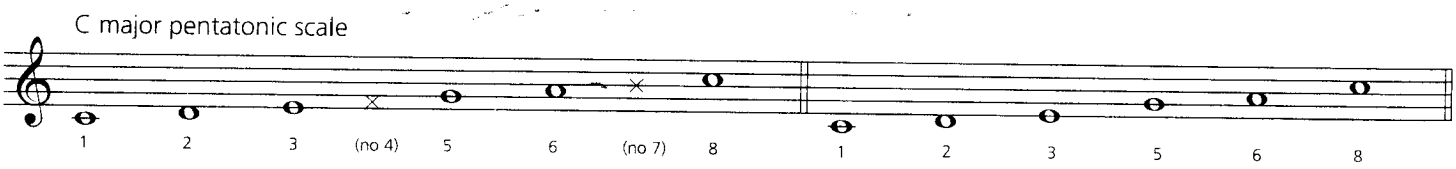
Use same practice routine as lower structure triads (See Page 78). Substitute upper structure triads for lower structure triads.

Pentatonic Scales

Any 5 (different) notes arranged in ascending order from the fundamental tone (root) of the scale constitutes a pentatonic scale, i.e., a 5-note scale.

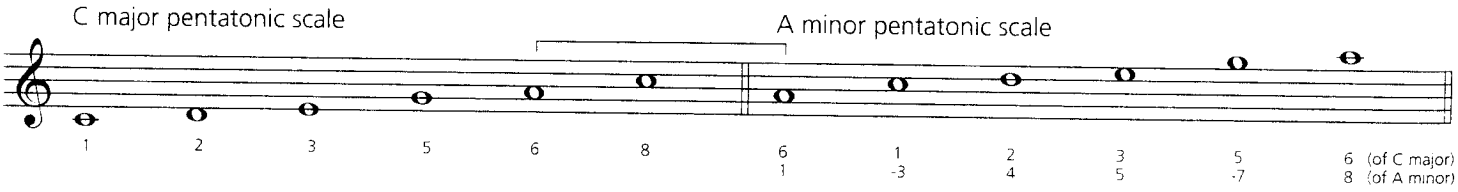
The most common pentatonic scale consists of the 1st, 2nd, 3rd, 5th and 6th degrees of a major scale, i.e. a major scale without the 4th and 7th degrees. This particular pentatonic scale form will be applied throughout the discussion.

Example III:31



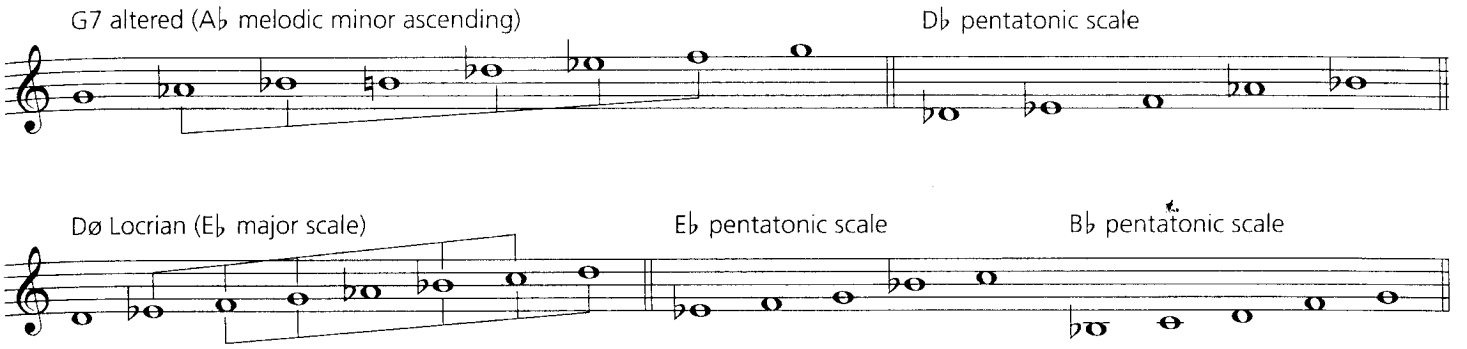
This major pentatonic scale forms a common minor pentatonic scale when started on the 6th degree, i.e. 6, 1, 2, 3, 5, of a major pentatonic scale is the same as 1, ♭3, 4, 5, ♭7 of a minor pentatonic scale.

Example III:32



The major pentatonic scale described above can be extracted from conventional 7-note chord scales and used as a source to derive melody for improvisation.

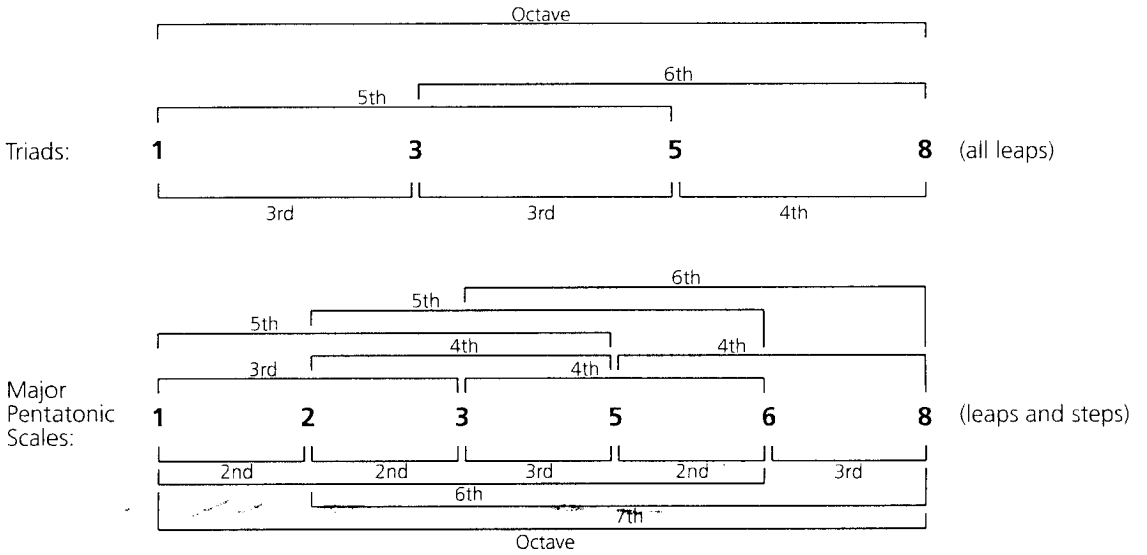
Example III:33



(See chart on page 110 for pentatonic scale application to chord scales.)

As improvising using only triads creates extremely angular melodic curves because of the necessary interval leaps, improvising with pentatonic scales will create more of a balance between interval leaps and stepwise motion since the scale itself if comprised of both - leaps and steps:

Example:



This balance, or combination of melodic leaping and stepwise motion, is one desirable feature of soloing using pentatonic scales because it creates interest through variety in the melodic curve.

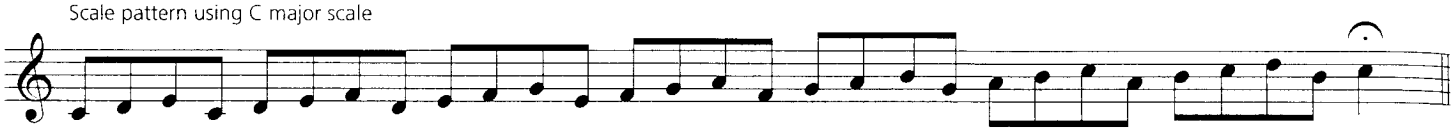
A simple triad arpeggio, e.g. 1,3,5,8, covers a wide melodic interval (perfect octave) using very few (4) notes, as compared to a stepwise diatonic scale run (1,2,3,4,5,6,7,8) which requires 8 notes - twice as many as a triad! A stepwise pentatonic scale diatonic run will cover the same melodic range (perfect octave) in 6 notes, i.e. more notes than a triad but fewer than an 8-note scale.

Since improvising often incorporates triad or chord arpeggios and stepwise scale runs, the pentationic scale (like the triad arpeggio) will cover a greater melodic range using fewer notes and in less time than an 8-note scale. This feature enables the soloist to create quicker and more dramatic changes in register while playing a simple pentatonic scale run, which is desirable.

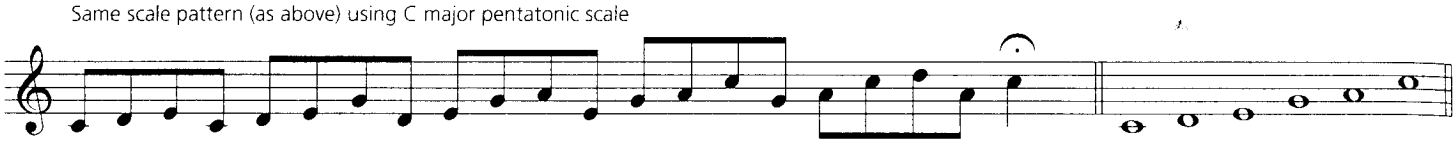
Also, because the pentatonic scale has fewer notes than an 8-note scale and combines leaps with steps, diatonic interval patterns and other exercises played throughout the pentatonic scale have a distinct, unique sound quality (effect). Scale patterns applied to pentatonic scales are relatively easy to learn because they are shorter (and therefore less complex) and take less time to complete than the same exercise patterns using 7 and 8-note scale forms.

Example III:34

Scale pattern using C major scale



Same scale pattern (as above) using C major pentatonic scale



Many positve effects can be achieved by using the pentatonic scale as a melodic source for improvising on chords due primarily to its relative simplicity (i.e., fewer notes than 7 or 8-note scales). However, like any device or source, it can lose its effectiveness if overused. Pentationic scale soloing (using scale patterns, etc.) will tend to sound mechanical, technical and unimaginative in this case. But, balanced with other sources, it is musical and useful.

Chord Type	Chord Scale	Popular Major Pentatonic Scales*
1. Major 7/Major 6	Ionian	I, V
	Lydian	I, II, V
2. Dominant 7 sus 4	Mixolydian sus 4	I, IV, ♭VII
3. Dominant 7	Mixolydian	I
	Lydian -7	I
	Altered	♭V
	1/2, 1	None**
	Whole Tone	None**
	Mixolydian -9, -13	None**
4. Minor 6, Minor/Major7	Melodic Minor (ascending)	IV
Minor/Major 7	Harmonic Minor	None**
5. Minor 7	Dorian	♭III, IV, ♭VII
	Aeolian	♭III, ♭VII
	Phrygian	♭III,♭VI, (♭II)
6. Minor 7♭5	Locrian	♭VI,(♭V)
	Locrian ♮9	♭VI
7. Diminished 7	1, 1/2	None**
8. Augmented/Major 7	Lydian/Augmented (melodic min.)	(II)
	Ionian/Augmented (harm. min.)	None**

Roman numerals in parentheses are pentatonic scales which contain a diatonic non-harmonic tone. However, they are often used nonetheless.

* 1, 2, 3, 5, 6 of a major scale.

** "None" refers only to the major pentatonic scale form used for this discussion, i.e. 1, 2, 3, 5, 6 of a major scale. Other pentatonic scale forms would apply to these chords (see page 113).

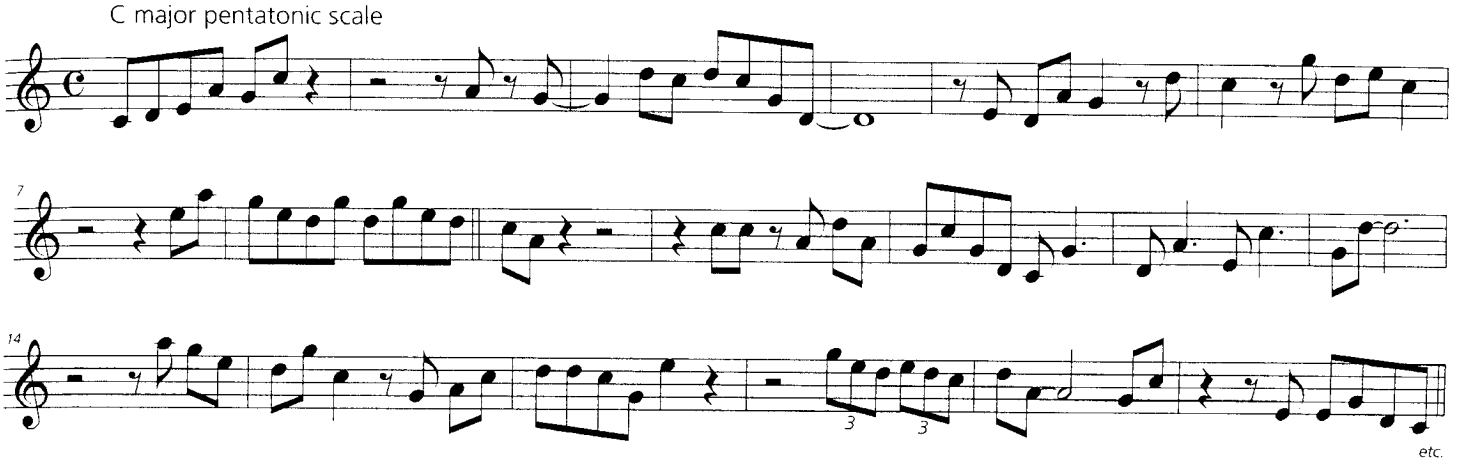
Practicing Pentatonic Scales, Exercises #1-3

As in soloing with lower and upper structure triads, better results will come after a period of preparation or practicing individual pentatonic scales using scale patterns, etc.

1. Practice various melodic interval patterns and scale patterns using individual major pentatonic scales in tempo, with and without metronome accompaniment. (For examples see Section I, Chord Scale Practice.)
2. Using the play/rest approach, improvise in tempo on a single pentatonic scale. Create variety and interest through rhythm, phrase lengths, rhythmic density, dynamics, articulations, time-feel, etc. Use various forms of accompaniment.

Example III:35R

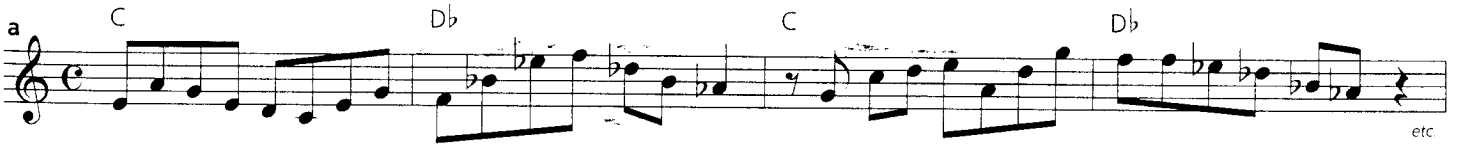
C major pentatonic scale



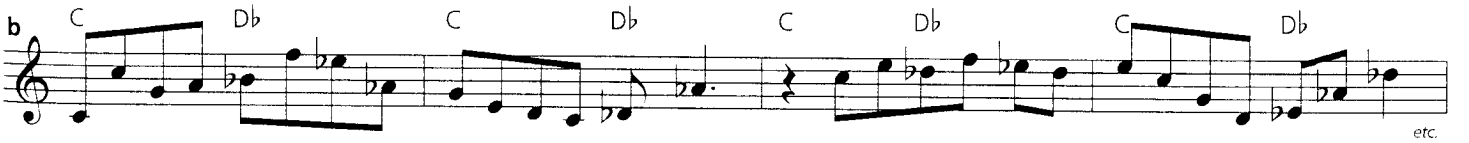
3. Select two pentatonic scales, e.g. C and D♭. Assign equal duration at first, e.g. 4 beats, 3 beats or 2 beats each, then vary the duration at will. Using the play/rest approach, improvise in tempo using only the notes of the respective pentatonic scales. Use all notes of each pentatonic scale played at first when chord duration is long enough. Then use some or all notes of the respective pentatonic scales. Repeat in other keys. Vary forms of accompaniment.

Example III:36R

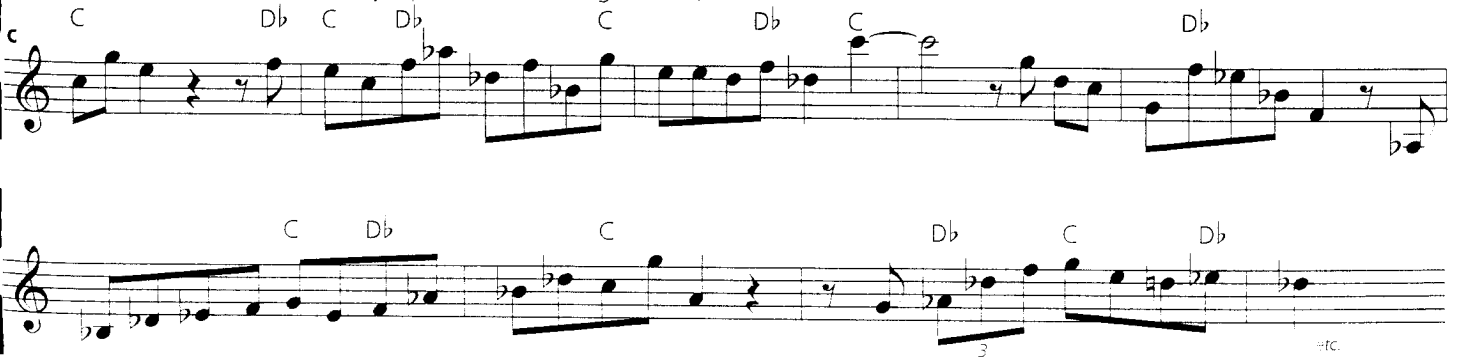
C major pentatonic / D♭ major pentatonic (4 beats each)



C major pentatonic / D♭ major pentatonic (2 beats each)



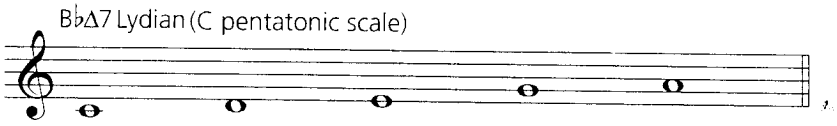
C major pentatonic / D♭ major pentatonic (change at will)



Applying Pentatonic Scales to Chord Progressions, Exercises #1a, 1b, 2

Write out a chord pattern or a tune progression with chord symbols above the stave. Assign appropriate chord scales. Select one pentatonic scale per chord (wherever one is available) and write it near the chord symbol. Write the notes of the pentatonic scale in the stave underneath the chord symbol, as in: root, 2, 3, 5, 6.

Example III:37

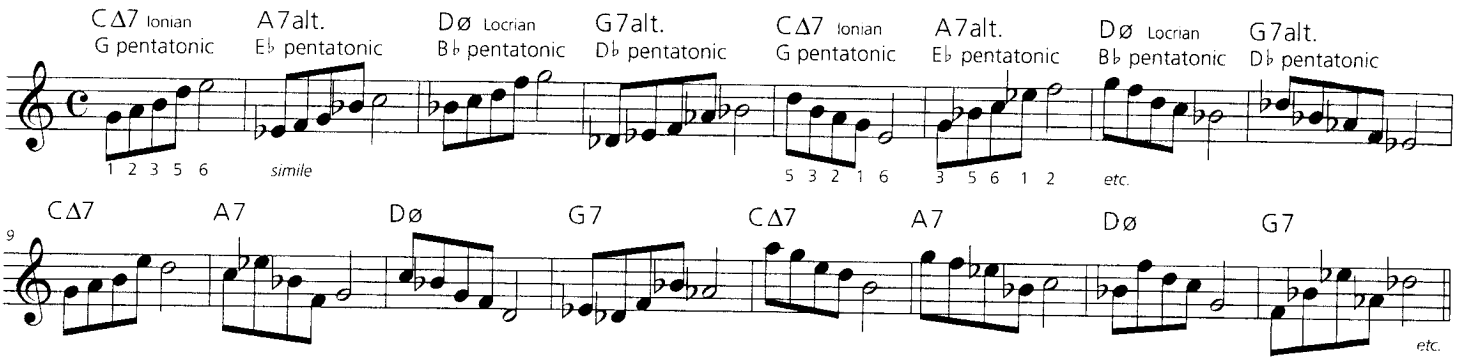


1. Warm up: Throughout the progression, play 1, 2, 3, 5, 6 (or any 5-note pattern using all notes of the pentatonic scale) on each assigned pentatonic scale. For chords lasting 4 beats use ♫♫♫♫ 𝅗𝅥 rhythm. For 3 beats use ♫♫♫ ♩, for 2 beats use ♫♫♫ or ♫♫ ♫♫ rhythms. Rest where there are no pentatonic scales available.

   a) Use the same scale pattern on each chord;

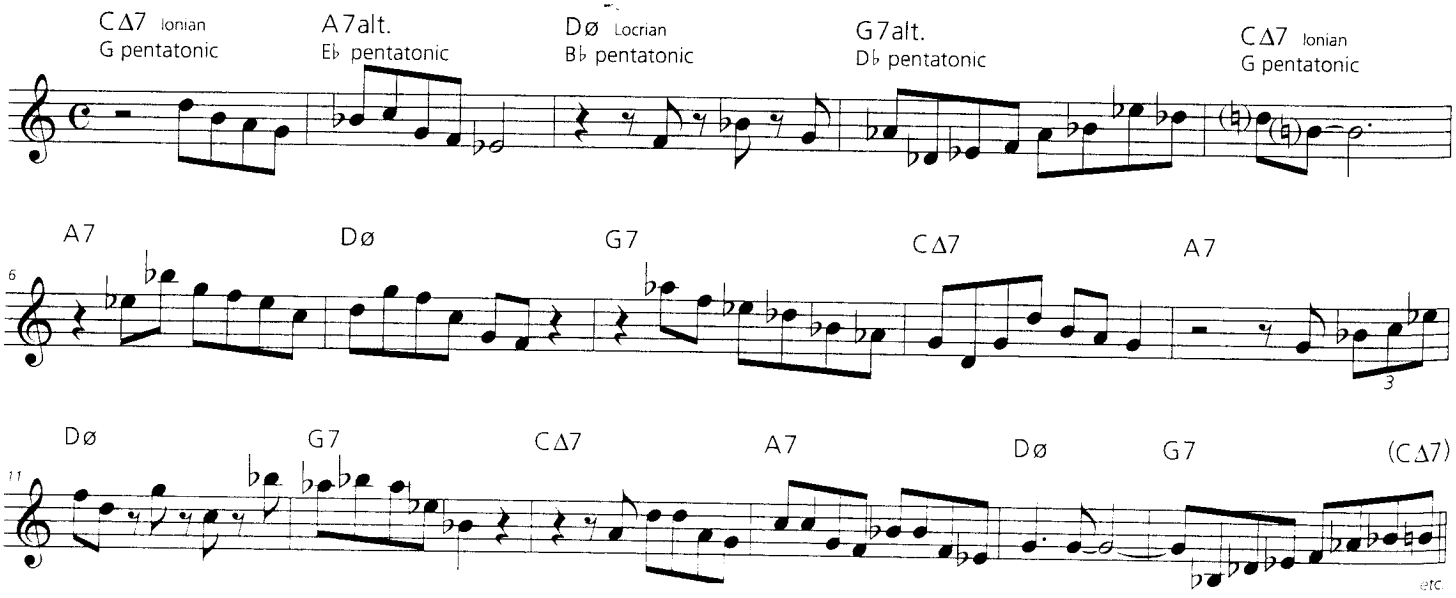
   b) use different scale patterns throughout the solo.

Example III:38R



2. Using the play/rest approach, solo on the chord pattern or tune progression in tempo connecting two or more adjacent pentatonic scales with a melodic line using only the notes of the assigned pentatonic scales. May use some or all notes of each pentatonic scale played.

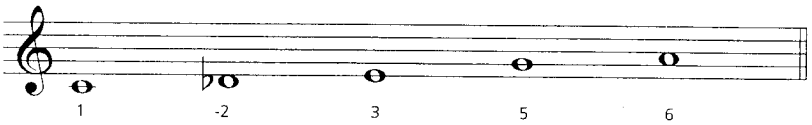
Example III:39R



Other (less conventional) pentatonic scales include the following scale forms:

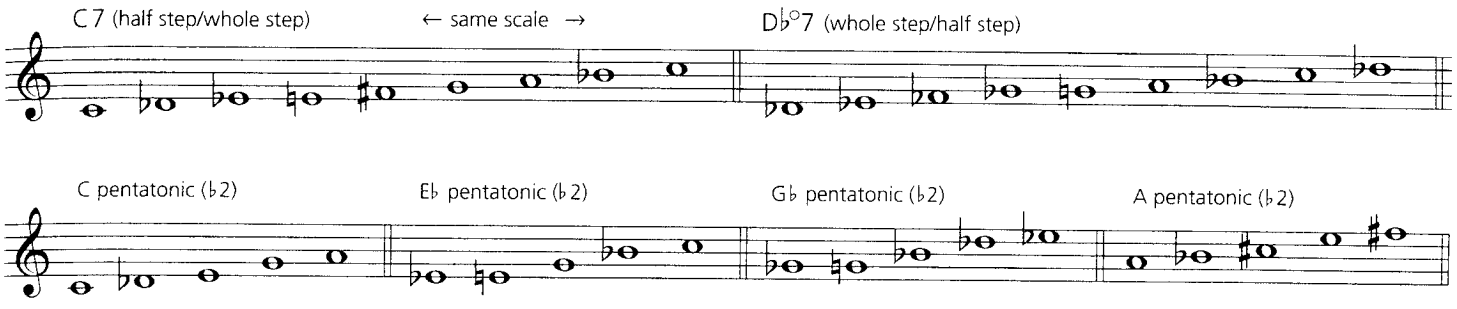
1. 1, ♭2, 3, 5, 6 (major pentatonic with ♭2)

Example III:40



The above pentatonic scale form can be applied on the "half step/whole step" and "whole step/half step" symmetrical scales.

Example III:41



2. 1, 2, ♭3, 5, 6
3. 1, 2, 3, ♭5, 6
4. 1, 2, 3, 5, ♭6
5. 1, 2, ♭3, 5, ♭6
6. 1, ♭2, ♭3, 5, ♭6
7. 1, ♭2, ♭3, ♭5, ♭6
8. 1, 2, 3, ♭5, ♭6

[Note: Concentrate on learning and applying the *major* pentatonic scale form (in all keys) before working with less conventional forms.]

Example: Daily Practice Schedule - Pentatonic Scales

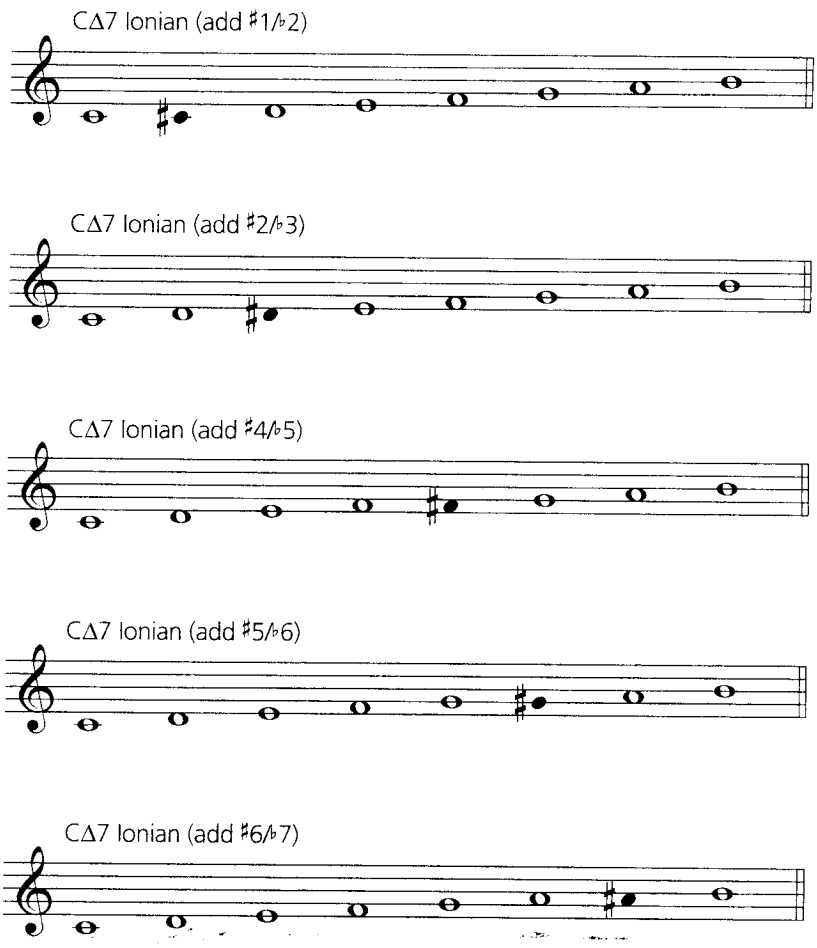
1. 30 minutes on practicing pentatonic scales, exercise #1.
2. 15 minutes on practicing pentatonic scales, exercise #2.
3. 15 minutes on practicing pentatonic scales, exercise #3.
4. 15 minutes on applying pentatonics to chord progressions, exercise #1.
5. 30 minutes on applying pentatonics to chord progressions, exercise #2.
6. 15 minutes on the spirit and mood of the music.

Chord Scales With Selected Non-Harmonic Tones

The purpose of this topic is to emphasize individual non-harmonic tones by incorporating them into conventional 7-note chord scales one at a time. This will enhance ear training and concentration on resolution of specific non-harmonic tones.

An 8-note scale can be formed by adding one non-harmonic note to a conventional 7-note scale: e.g., to the major scale (Ionian) add: ♭2 (#1), or #2 (♭3), or #4 (♭5), or #5 (♭6), or ♭7 (#6).

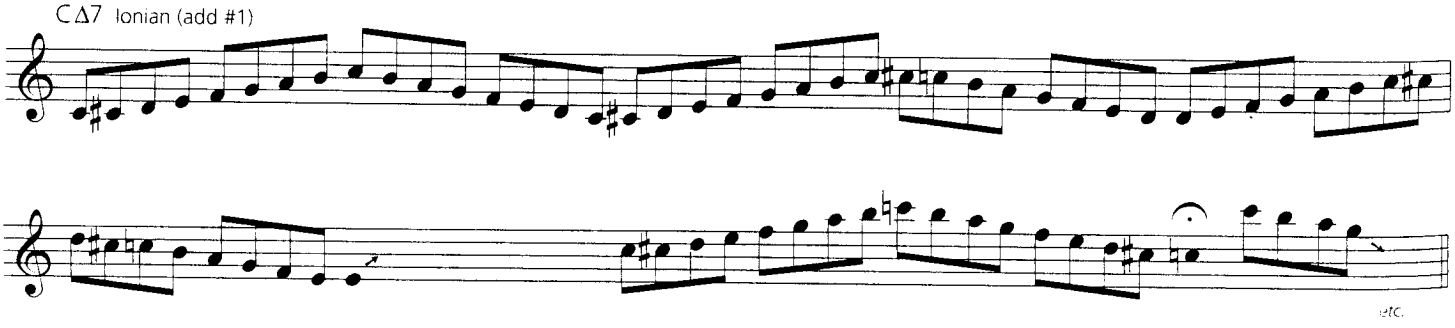
Example III:42



Chord Scales With Selected Non-Harmonic Tones, Preparation Exercises #1-3

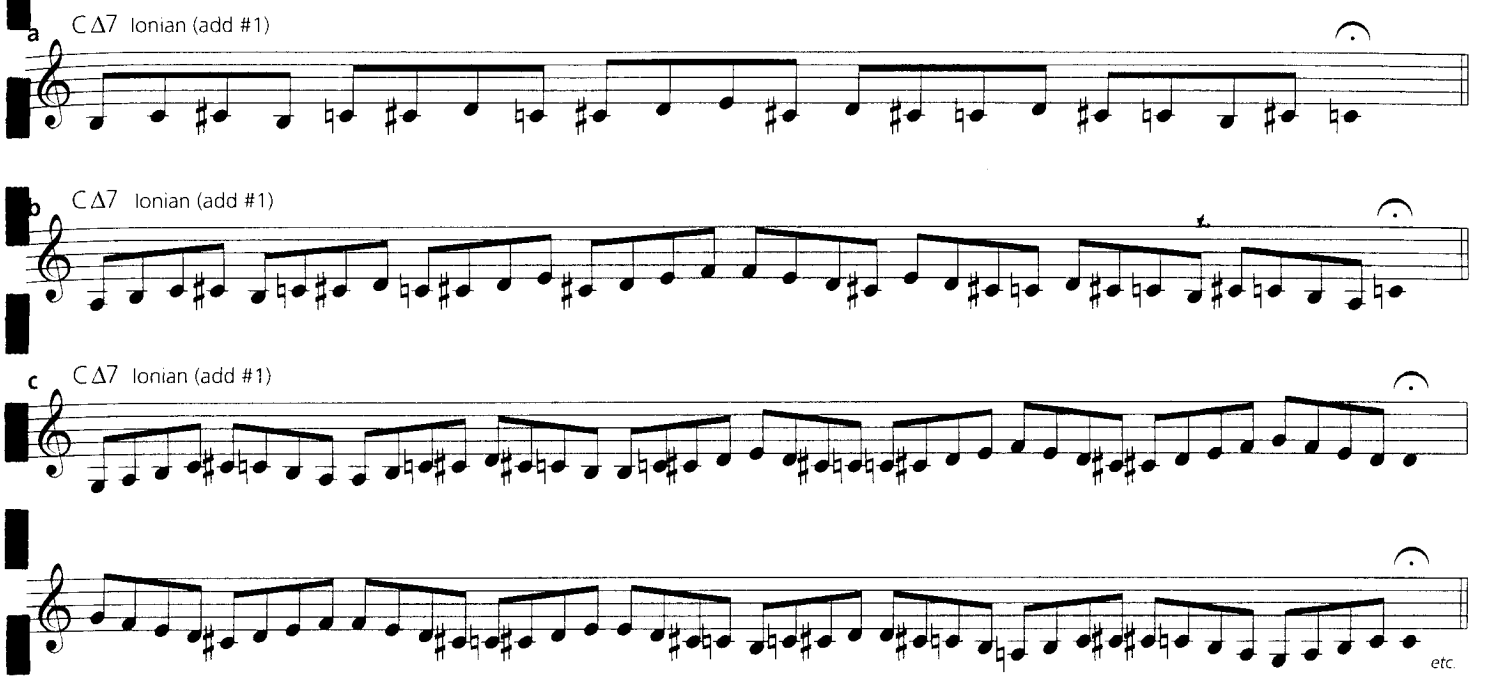
1. Apply various conventional scale patterns to the new 8-note scale. Practice in tempo.

Example III:43



2. Isolate a section of the scale which contains the new (added) note and apply scale patterns in order to get more practice at using the new note of the scale.

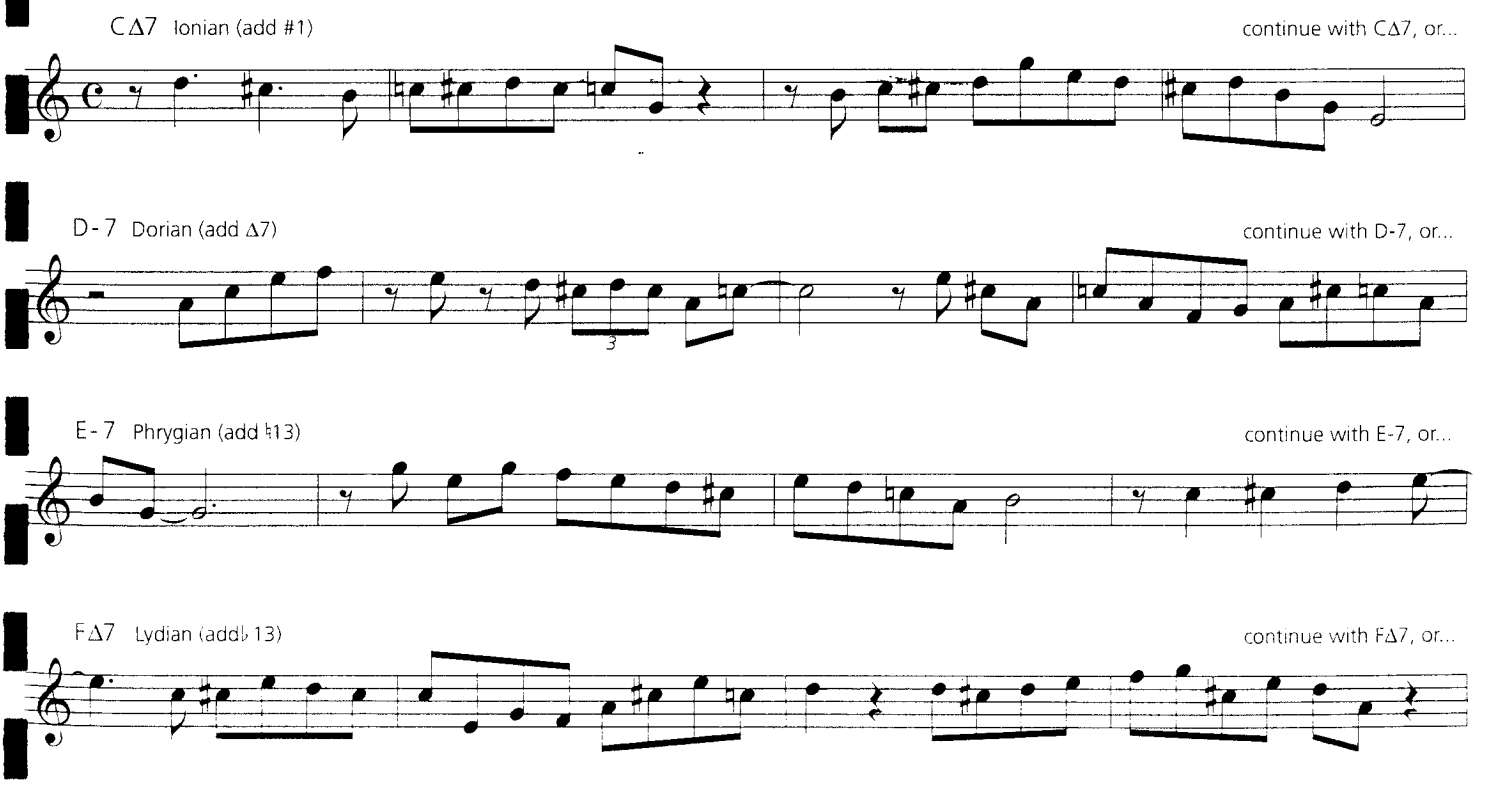
Example III:44



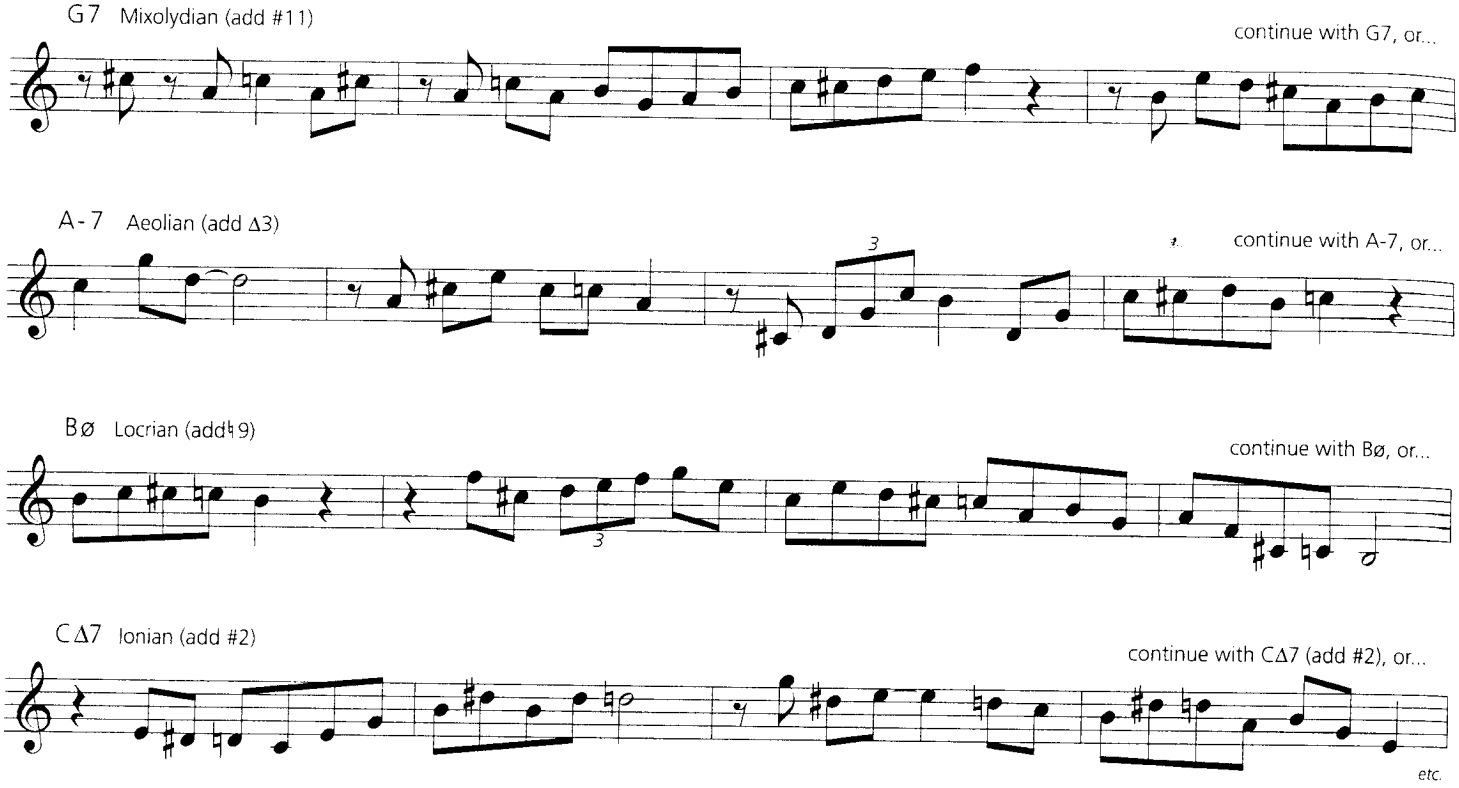
3. Using the play/rest approach, improvise in tempo using only notes of the new 8-note scale over single (individual) chords, unlimited duration, which are diatonic to the original 7-note scale. Resolve the non-harmonic tones directly and indirectly. E.G., with CΔ7 Ionian/add #1, solo on: CΔ7, D-7, E-7, FΔ7, G7, A-7, Bø, individually - modal style.

   [Note: CΔ/ Ionian/add♯1, for example, produces the same notes as D-7 Dorian/add Δ7; E-7 Phrygian/add ♮13; FΔ7 Lydian/add ♭13; G7 Mixolydian/add ♯11; A-7 Aeolian/add Δ3; and Bø Locrian/add ♮9.]

Example III:45R



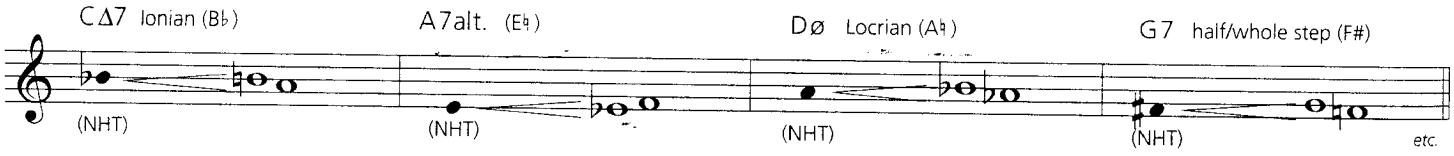
Example III:45R (continued)



Soloing With Chord Scales and Selected Non-Harmonic Tones, Exercises #1 and 2

Select a tempo, chord pattern or tune progression, and a mode of accompaniment. Assign an appropriate chord scale for each chord in the progression and select one non-harmonic tone to add to each chord scale. Write each chord symbol and the specific non-harmonic pitch added to the scale above the stave. Write the non-harmonic note and its surrounding resolution notes in the stave.

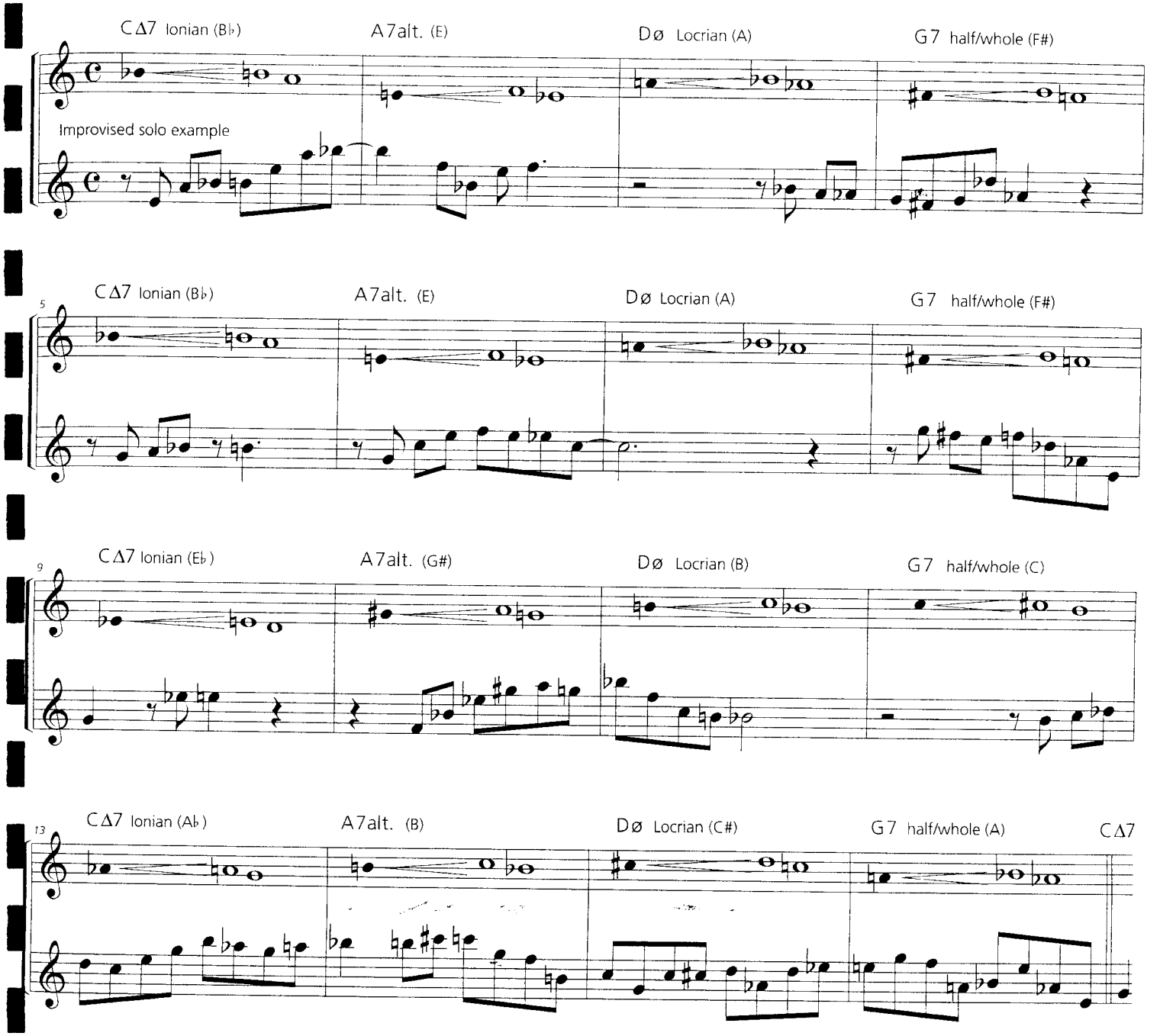
Example III:46



1. Using the play/rest approach, first improvise in tempo on each chord of the progression separately or individually - modal style, unlimited duration. Concentrate on playing (emphasizing) the added non-harmonic tone and resolving it directly and indirectly.

2. Using the play/rest approach, improvise in tempo on the entire chord pattern or tune progression while focusing on playing and resolving the (added) non-harmonic tone each time you play on a chord. Restrict non-harmonic activity (as much as possible) to the specific non-harmonic tone added to each scale.

Example III:47R



All of the previous exercises on preparing and soloing with chord scales and selected non-harmonic tones can be applied to melodic minor (ascending), harmonic minor and symmetrical scales by adding one non-harmonic tone at a time to the original scale.

Example: Daily Practice Schedule - Preparing and Soloing With Chord Scales and Selected Non-Harmonic Tones

1. 15 minutes on preparation exercise #1.
2. 15 minutes on preparation exercise #2.
3. 30 minutes on preparation exercise #3.
4. 20 minutes on soloing exercise #1.
5. 30 minutes on soloing exercise #2.
6. 10 minutes on the spirit and mood of the music.

Rhythmic Values

The rhythmic value of a note (or rest) is its length or duration measured in beats relative to the time signature, e.g. in 4/4 time the rhythmic value of a whole note is 4 beats, a quarter note is 1 beat, an eighth note is 1/2 beat, a half-note tied to an eighth note is 2 1/2 beats, etc.

We naturally use notes (and rests) of different rhythmic values when improvising, i.e. whole notes (whole rests), half note (half rests) quarter notes, eighth notes, triplets, 16th notes and various (tied) combinations. These note values can also be isolated and practiced individually or used in specific combinations to develop a deeper awareness of each rhythmic value's sound effect and the ability to use it more fluently by ear.

In addition, limiting the rhythmic possibilities to a *single* rhythmic value (especially to quarter notes or longer durations at medium tempos), forces the player to create variety and interest in the solo through melody. Therfore, exercises in which the rhythm is restricted or controlled will not only develop an ability to use the selected rhythmic value more effectively, but also an ability to form more lyrical melodies.

The following exercises are designed for exploring individual rhythmic values and certain combinations. (See accompanying examples, also.) Each exercise can be practiced in 3 ways:

(1) using a single pitch and rhythm only (i.e. no melody or harmony);

(2) using "free" melody (i.e. no harmonic restriction); and

(3) using various harmonic settings (such as a single chord, a chord pattern or tune progression).

Practice at slow, medium and fast tempos with and without accompaniment (metronome, comping tape, etc.), in 4/4, 3/4 and other time signatures.

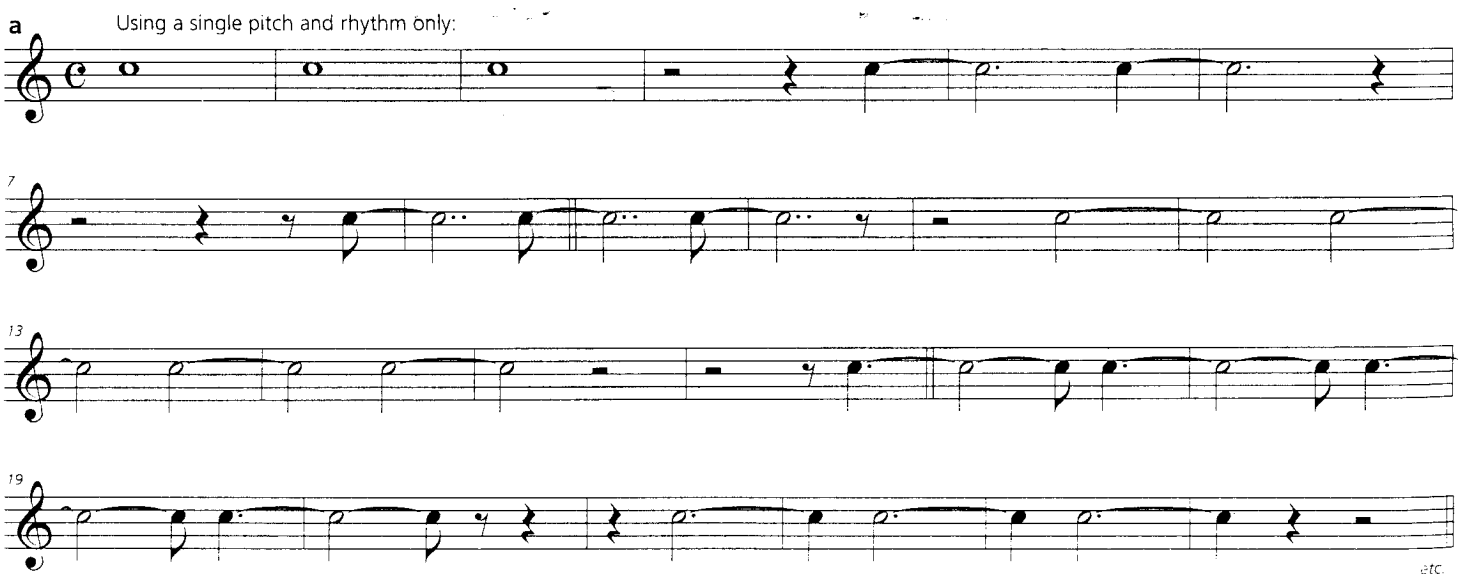
[Note: Drummers should use *concerted* drum and cymbal attacks to execute sustained notes, e. g. whole note values, and concerted drum attacks only to execute short notes, e. g. quarter notes, 8th notes, etc.]

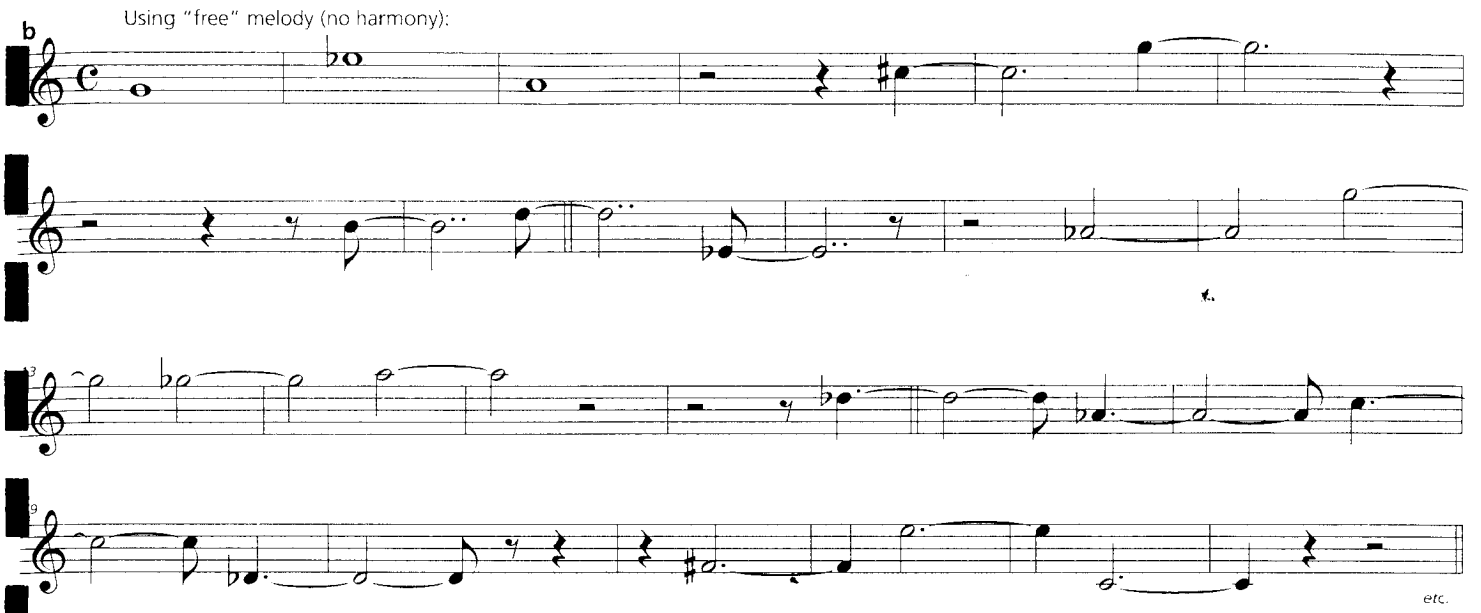
Rhythmic Values, Exercises #1-9

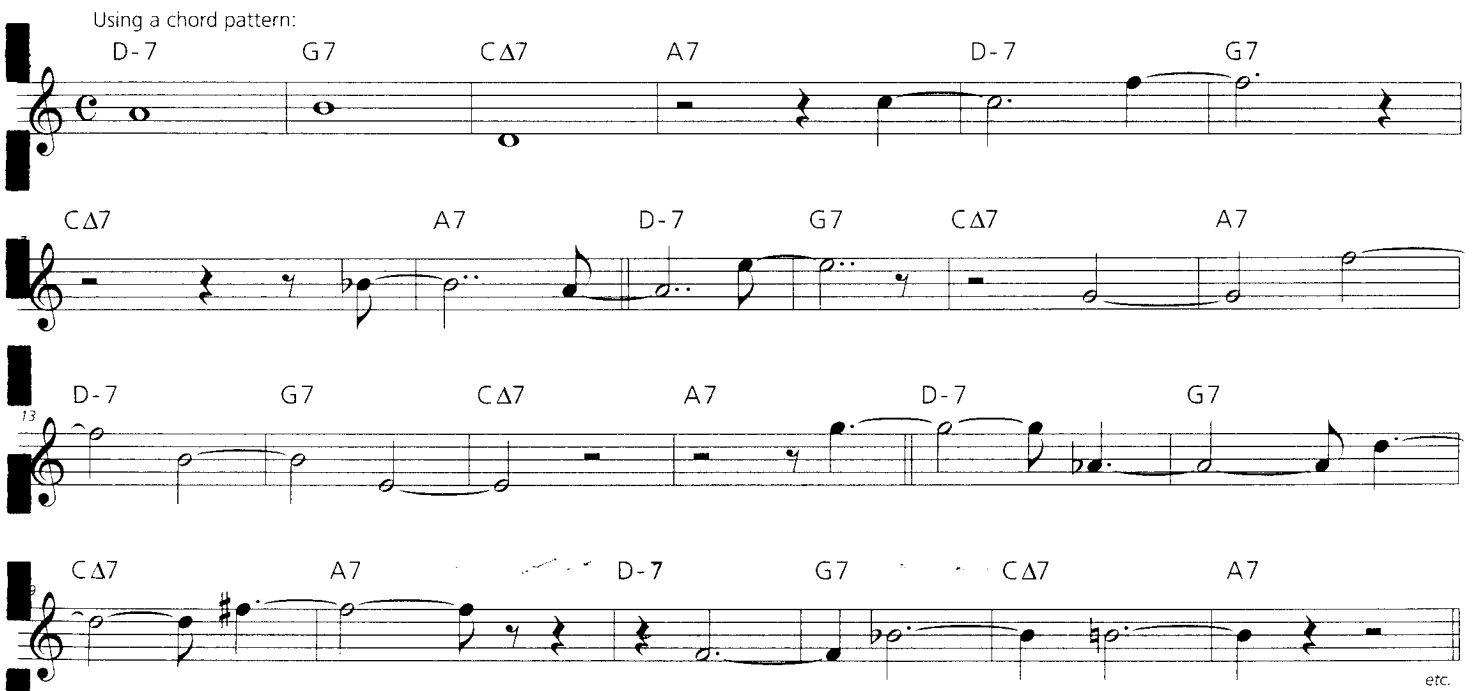
Using the play/rest approach, apply the following rhythmic values throughout the solo. Begin phrases on various downbeats and upbeats within a measure. Phrase lengths may be equal and/or varied.

1. Each phrase is comprised of predominantly whole note rhythmic values. [Note: "predominantly" means try to play only whole notes, but if other note values occasionally occur, it's okay.]

Example III:48

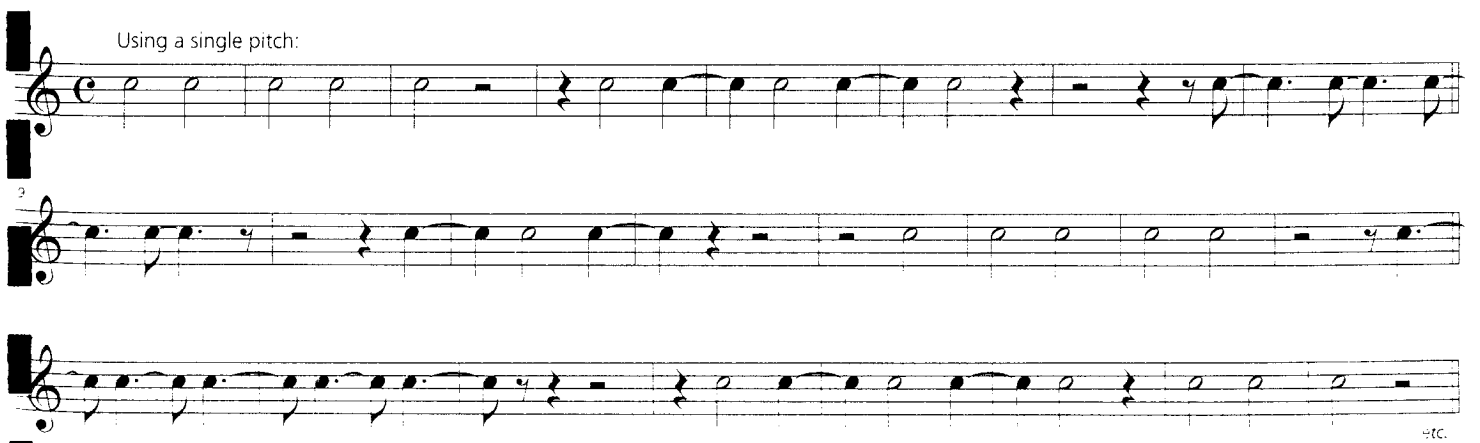


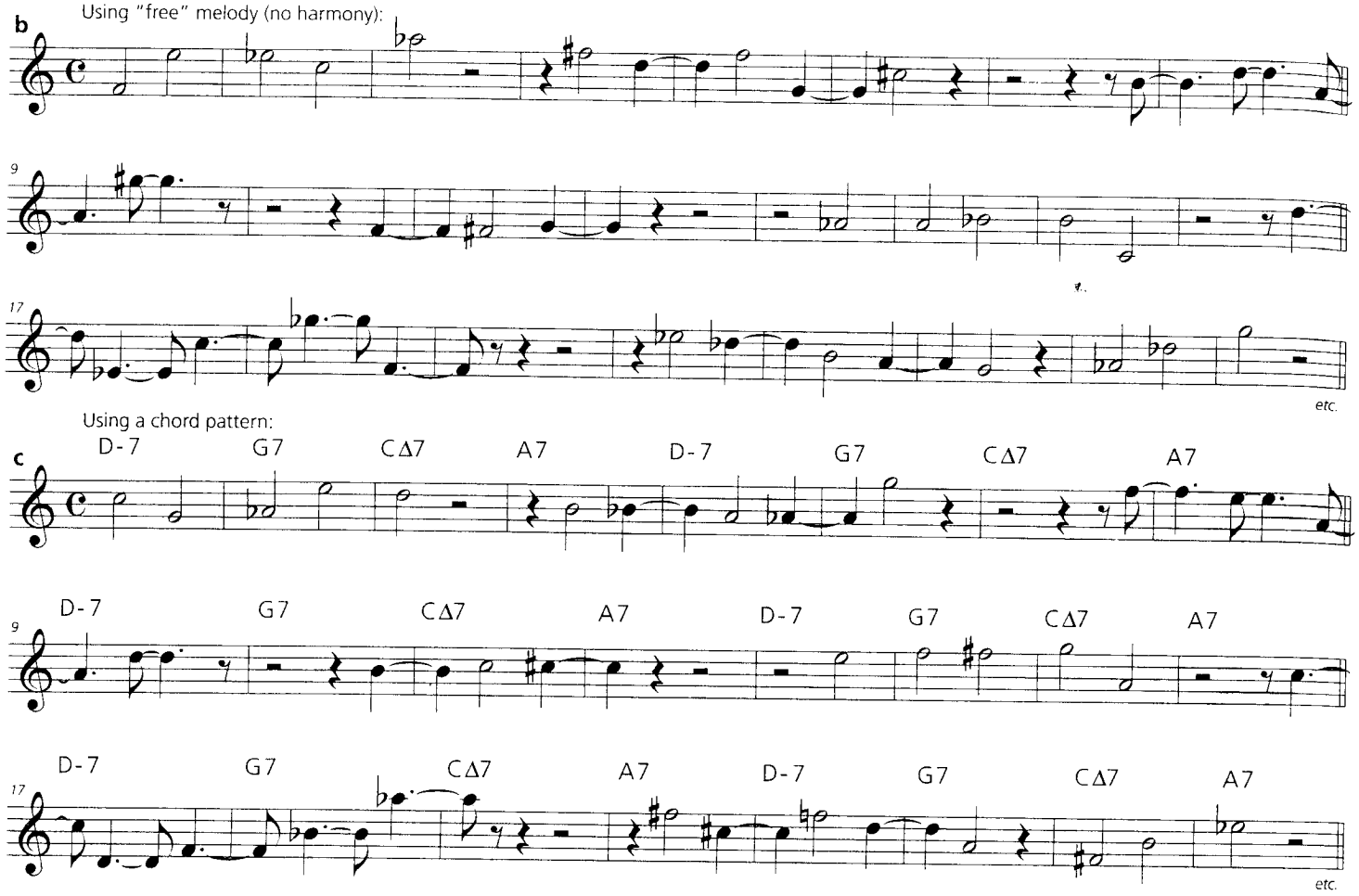




2. Each phrase is comprised of (predominantly) half note rhythmic values.

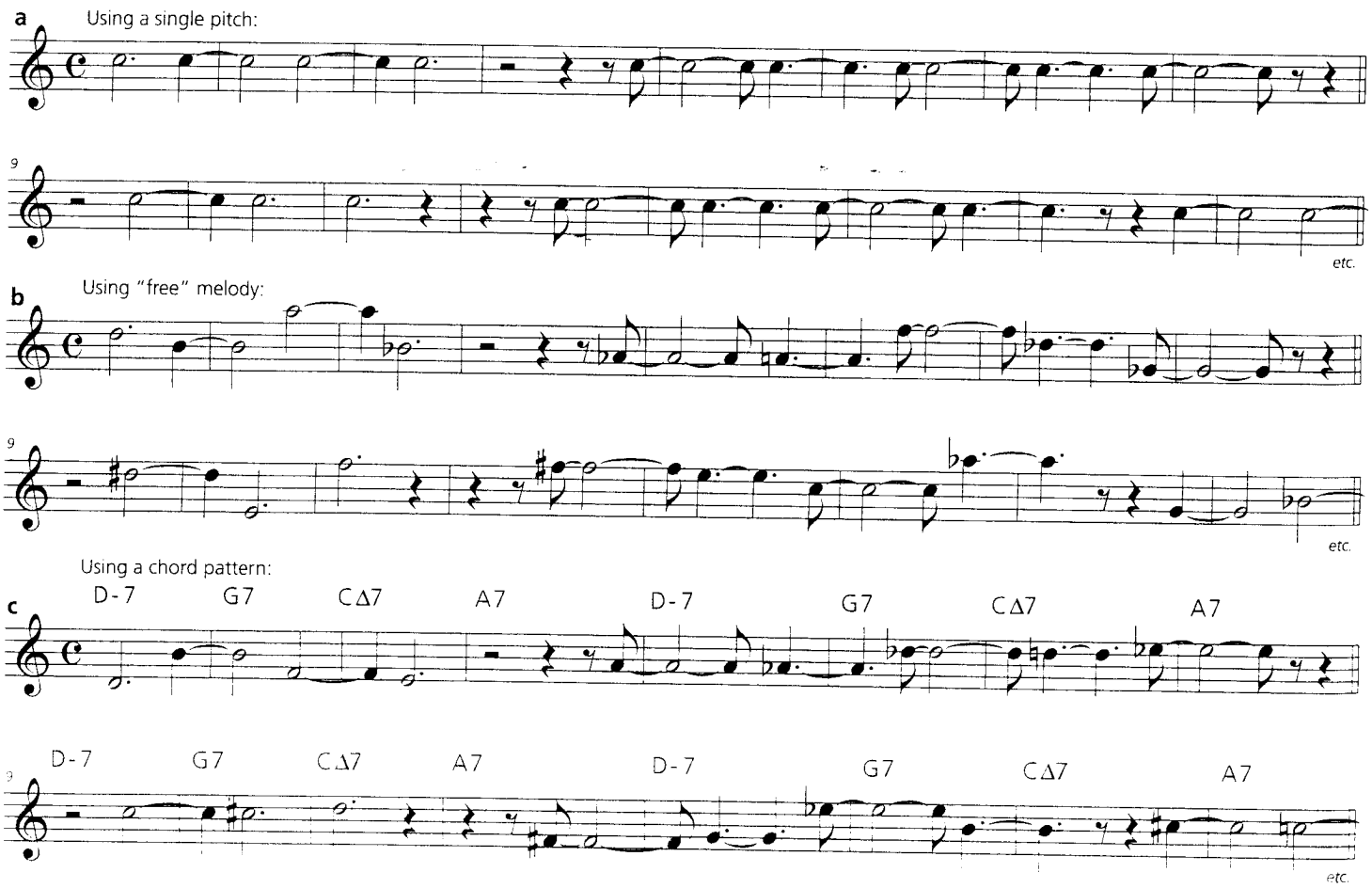
Example III:49





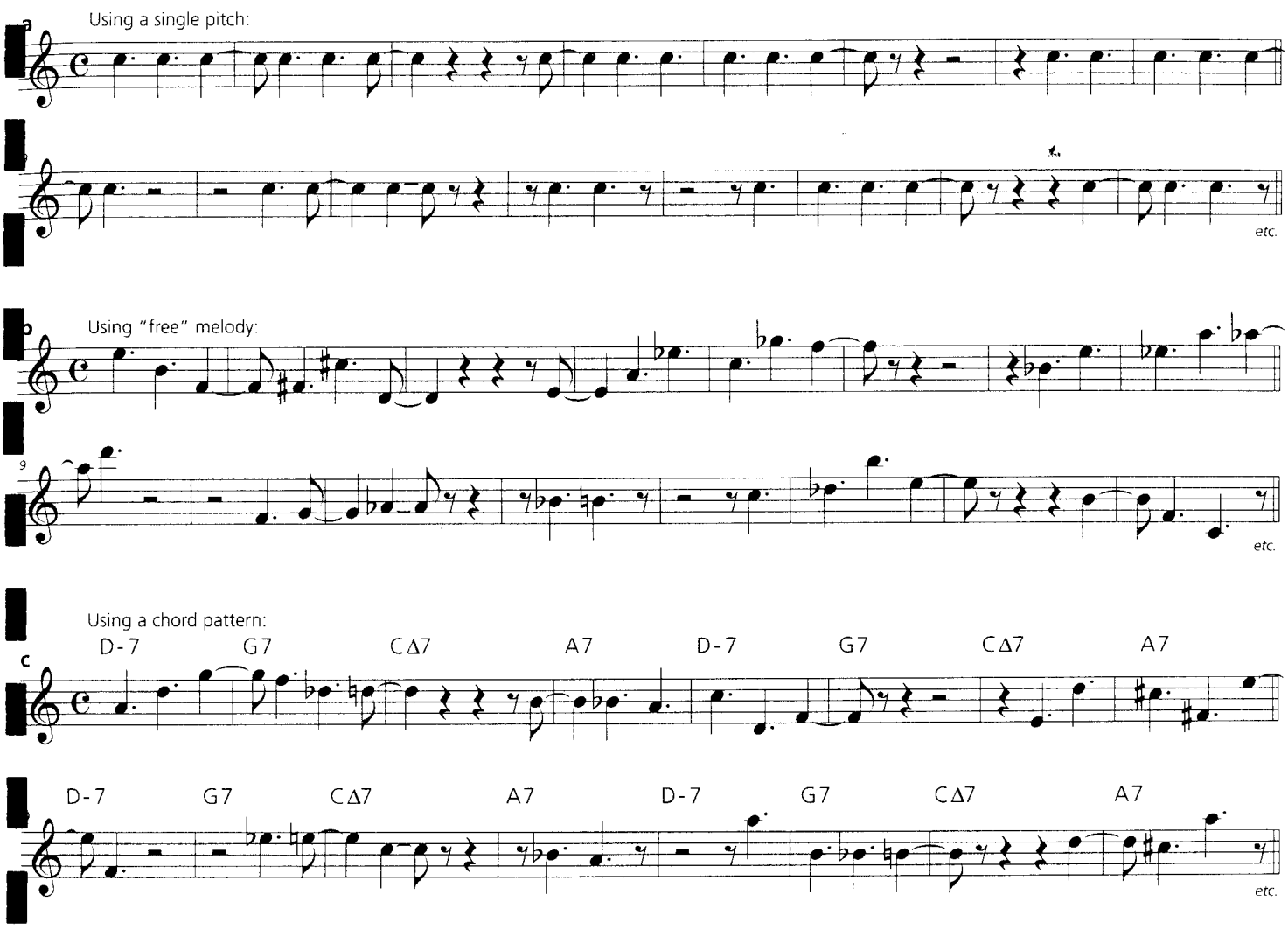
3. Each phrase is comprised of (predominantly) dotted half note rhythmic values.

Example III:50



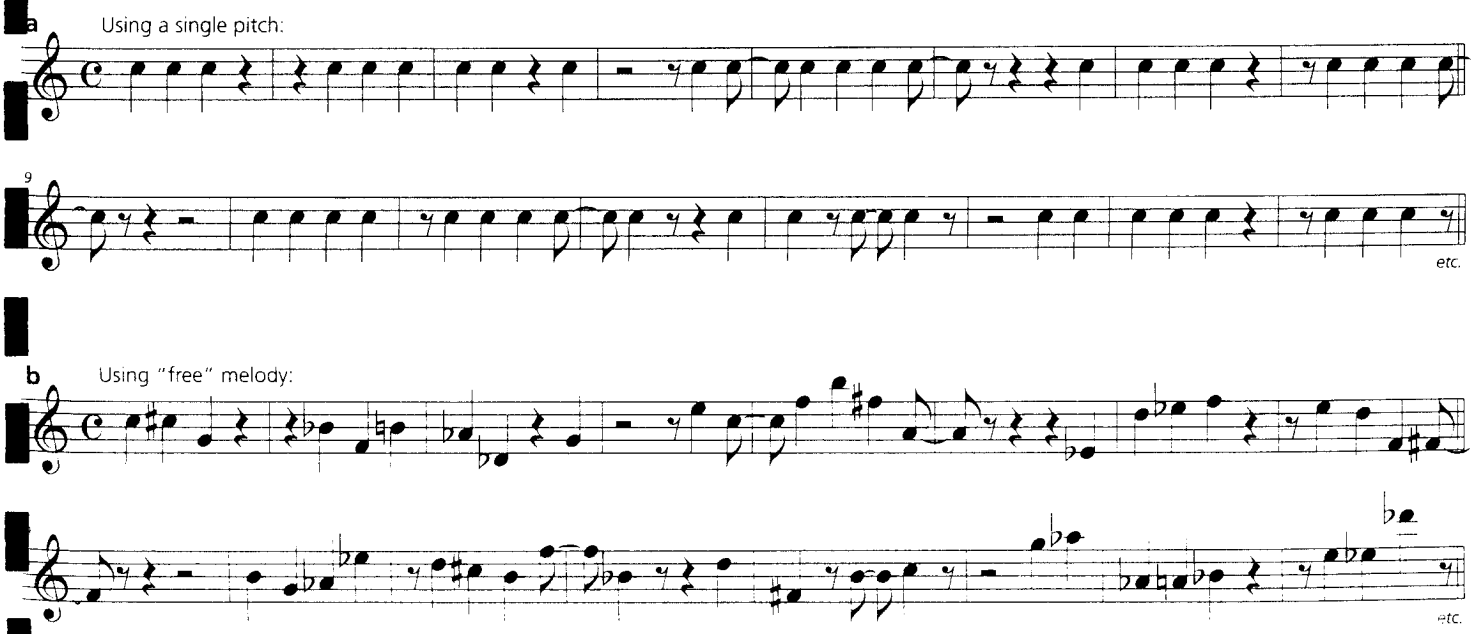
4. Each phrase is comprised of (predominantly) dotted quarter note rhythmic values.

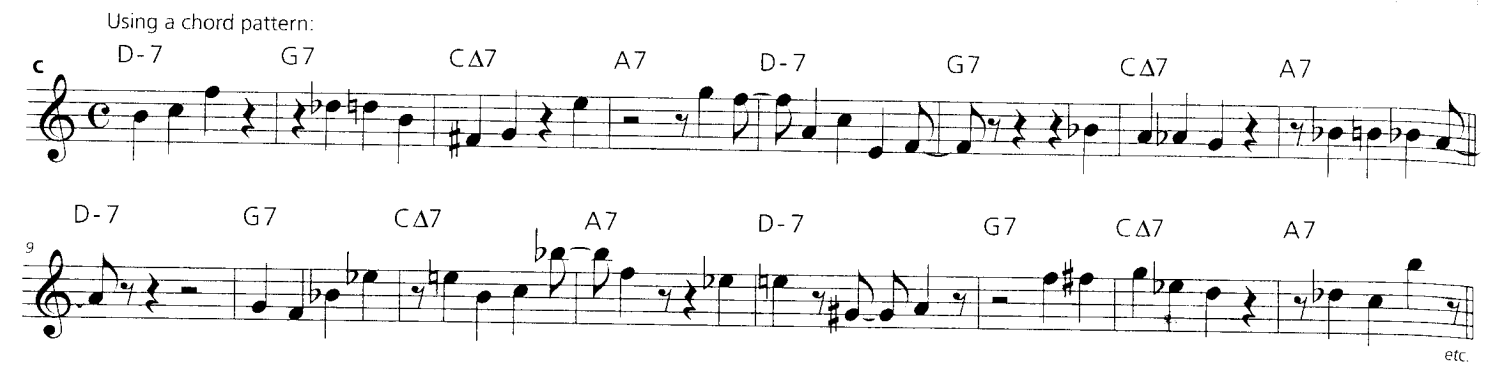
Example III:51



5. Each phrase is comprised of (predominantly) quarter note values.

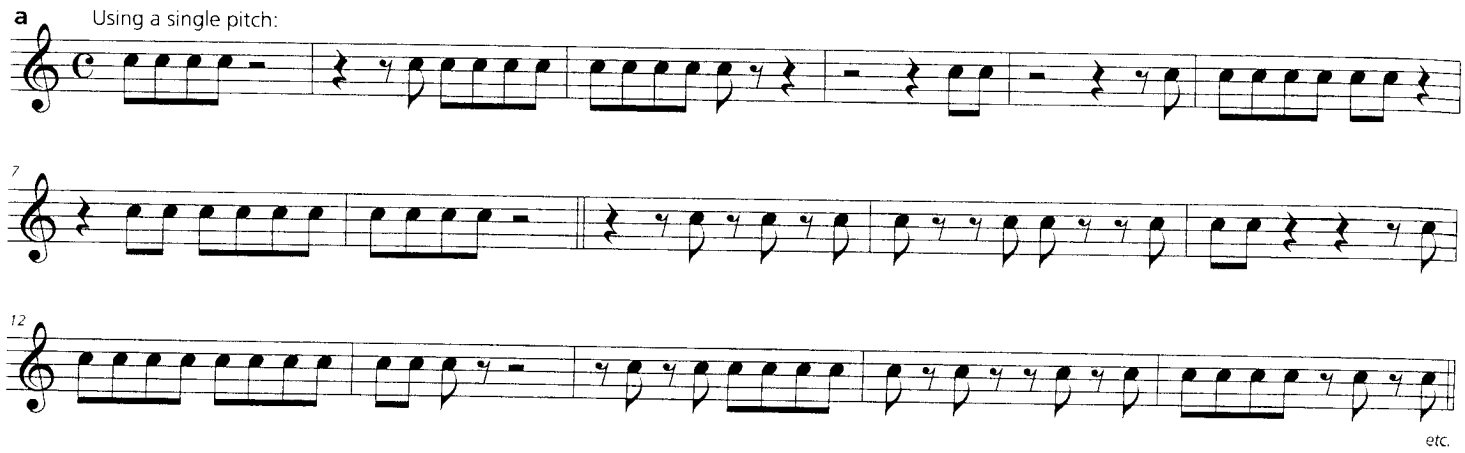
Example III:52

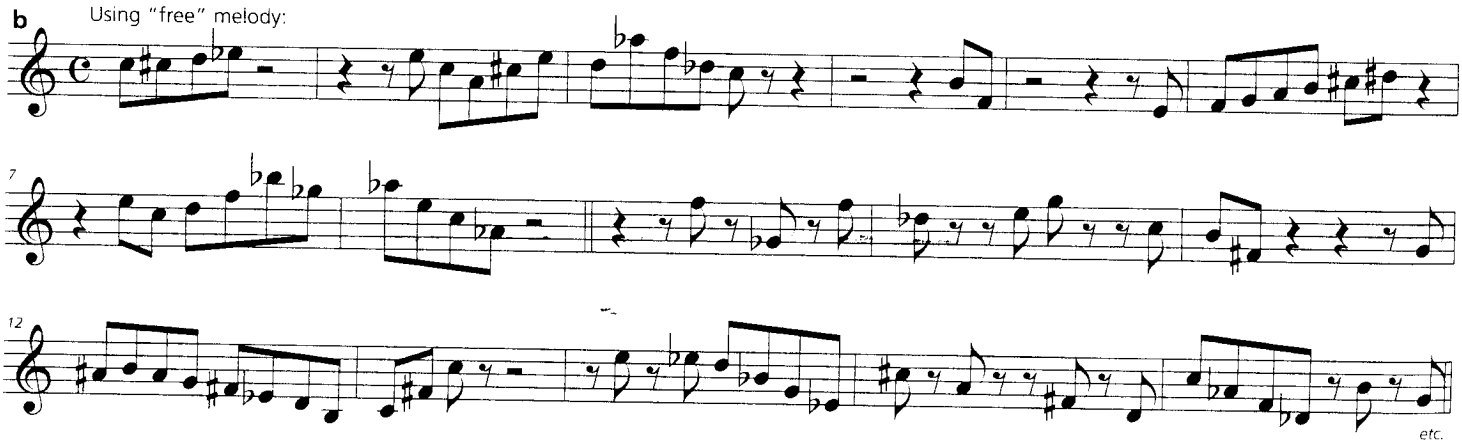


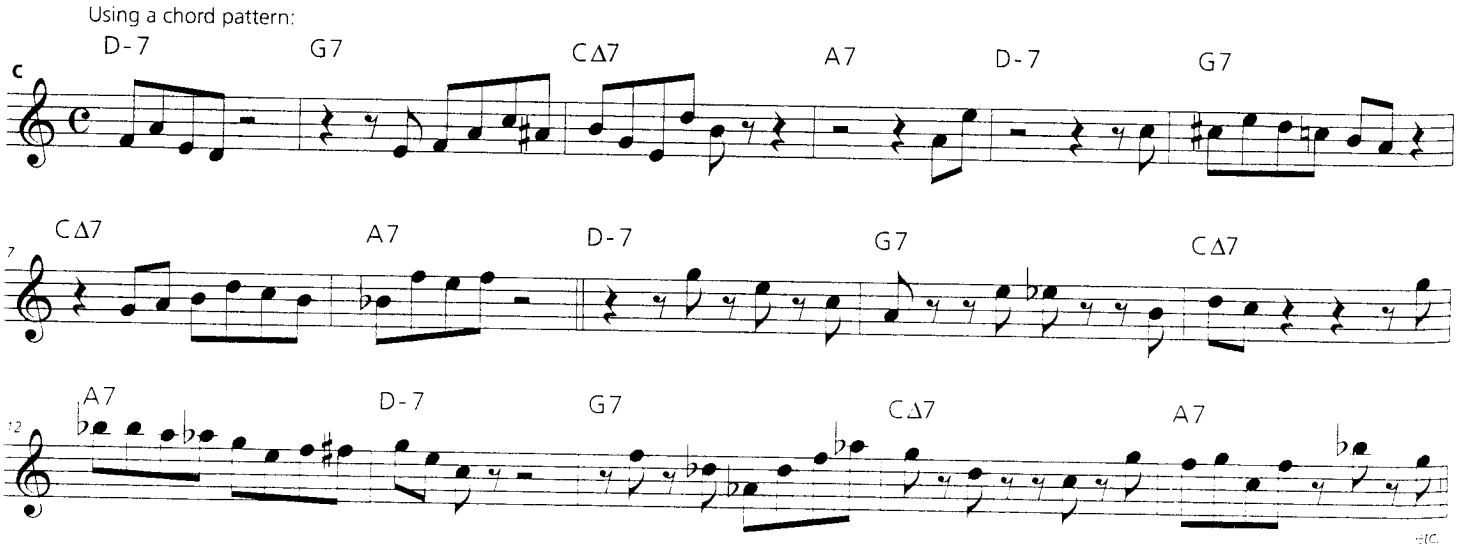


6. Each phrase is comprised of (predominantly) eighth note values.

Example III:53

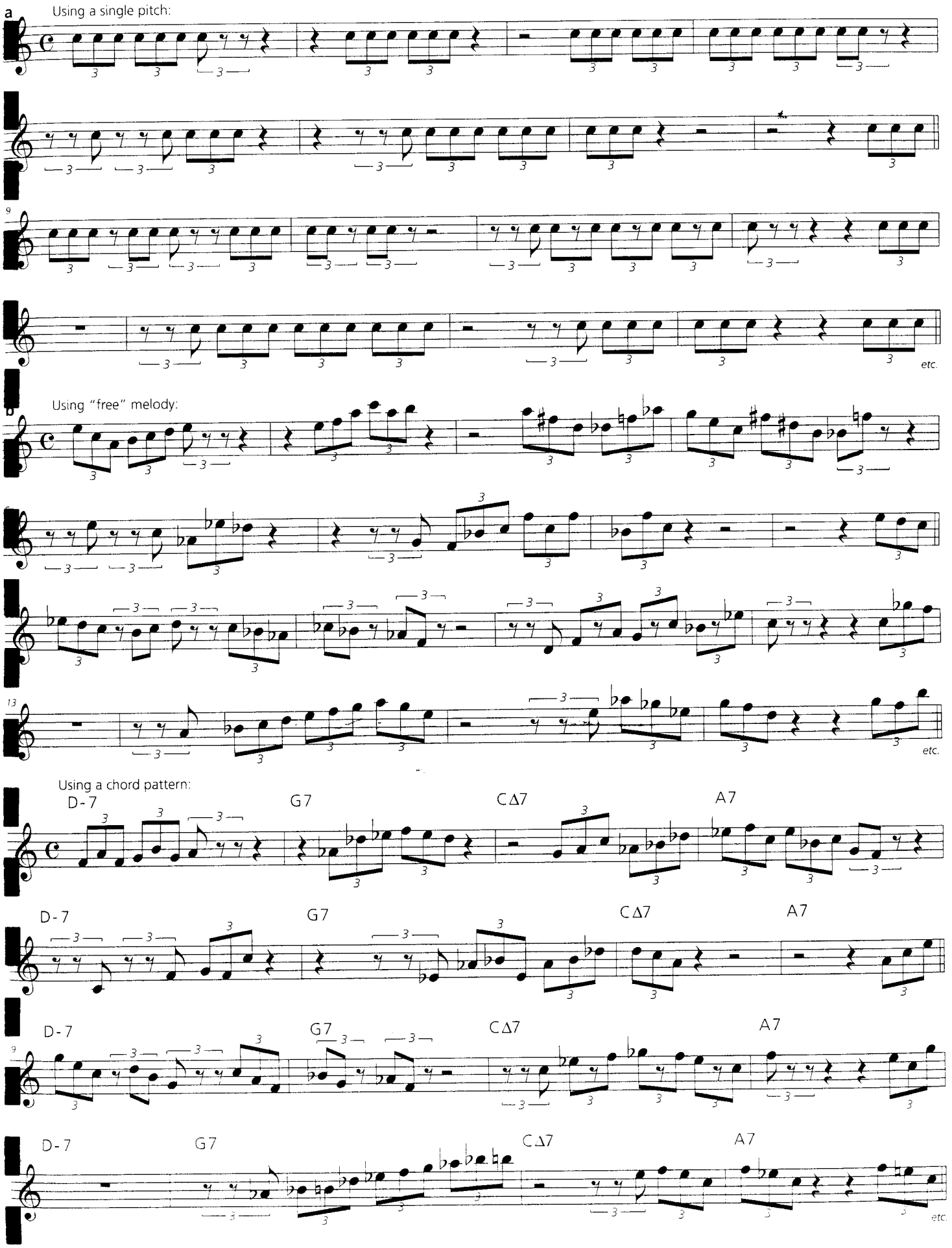






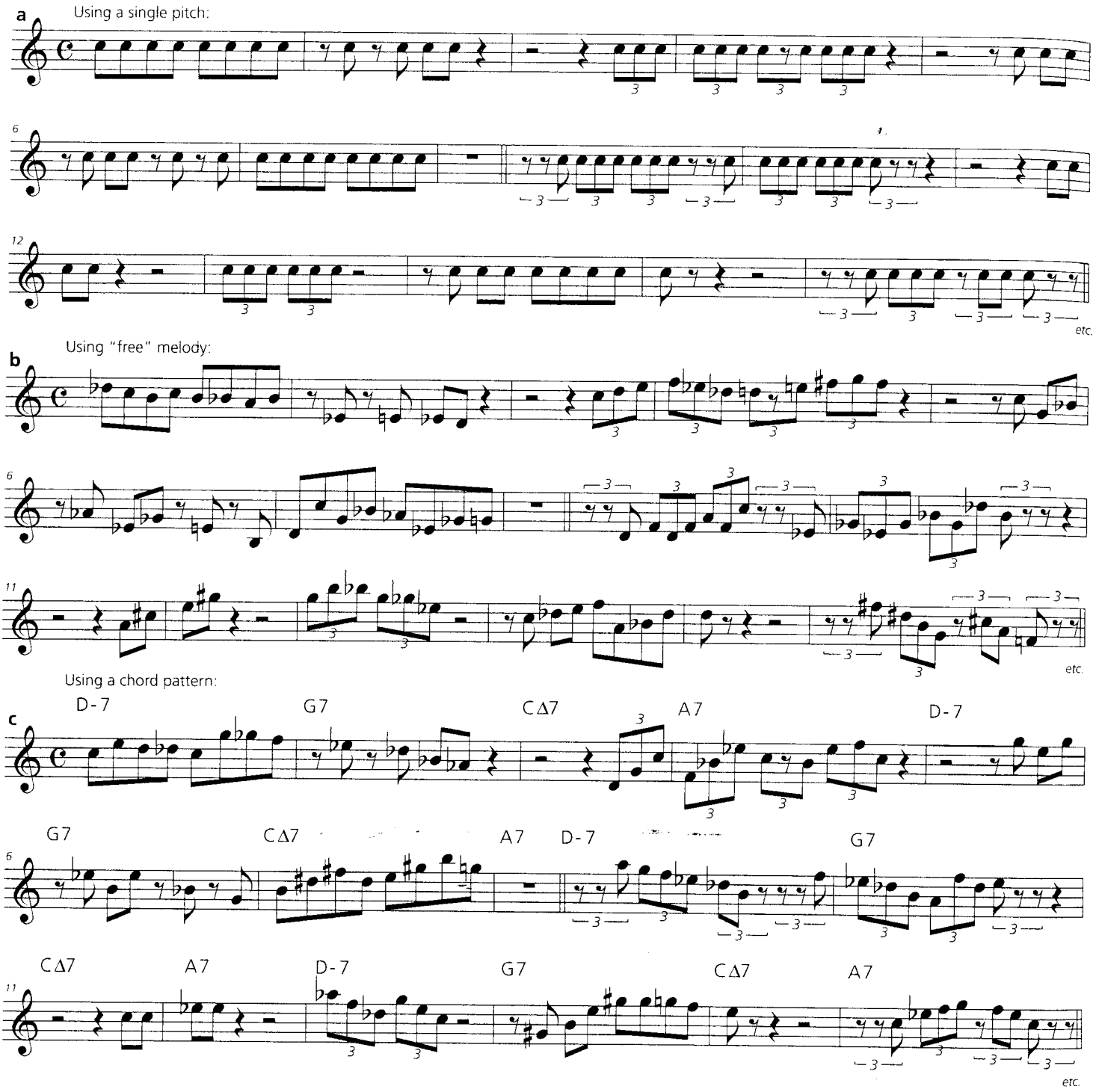
7. Each phrase is comprised of (predominantly) triplet note values.

Example III:54



8. Rotate rhythmic values per phrase throughout the solo, e.g. 1st phrase uses only 8th notes, 2nd phrase uses only triplets, 3rd phrase uses 8th notes, 4th phrase uses triplets, etc.

Example III:55



9. Combine (opposite) rhythmic values in each phrase: Begin each phrase with a sustained note, end with 8th notes; reverse procedure; begin and end each phrase with sustained notes, use 8th notes in middle, etc.

Example: Daily Practice Schedule - Rhythmic Values

1. 15 minutes on exercises #1-9 (choose one or two) using a single pitch and rhythm only.
2. 15 minutes on exerceses #1-9 (use same ones as above) using "free" melody, no harmonic restriction.
3. 15 minutes on exercises #1-9 (use same ones as above) using a single chord, chord pattern or tune progression.
4. 15 minutes on the spirit and mood of the music.

Syncopation

Syncopation is an important rhythmic feature of improvising which can be created by accenting certain beats (downbeats and upbeats) of a measure which are normally unaccented. Syncopation propels the rhythmic flow and enhances the feel of the music, producing the sensation of forward motion, and, in more exaggerated cases, of disguising or distorting the original meter indicated by the time signature.

Example III:56R

Using a single pitch:

etc.

Using "free" melody:

etc.

Using a chord pattern:

D-7 G7 CΔ7 A7 D-7 G7

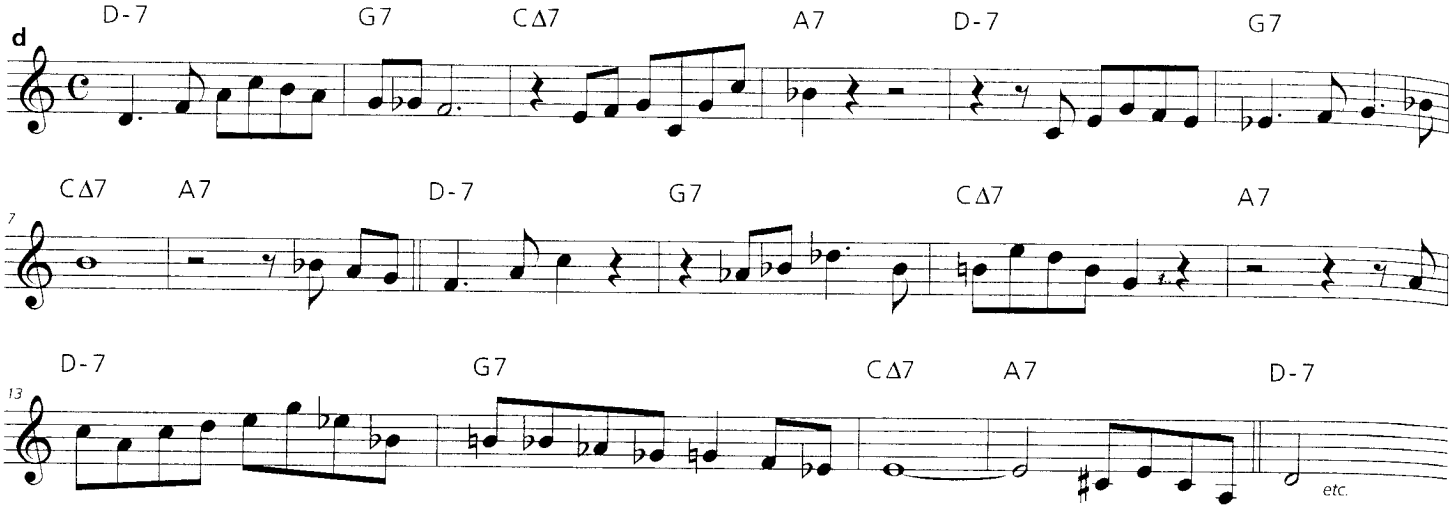
CΔ7 A7 D-7 G7 CΔ7 A7

D-7 G7 CΔ7 A7 D-7 G7 CΔ7

A7 D-7 G7 CΔ7 A7

etc.

Example of less syncopation using a chord pattern:



IMPORTANT:

Like rhythmic values, the following syncopation exercises can be practiced in 3 ways:

(1) using a single pitch and rhythm only (no melody or harmony);
[Note: Limiting the melody to a single pitch is an excellent exercise for developing rhythmic variety and syncopation since it forces the player to create interest in the solo through rhythm alone. Other possibilities would include limiting the melodic choices of a solo to 2, 3 or 4 specific notes only.]

(2) using "free" melody (no harmonic restriction); and

(3) using a single chord, chord pattern or tune progression.

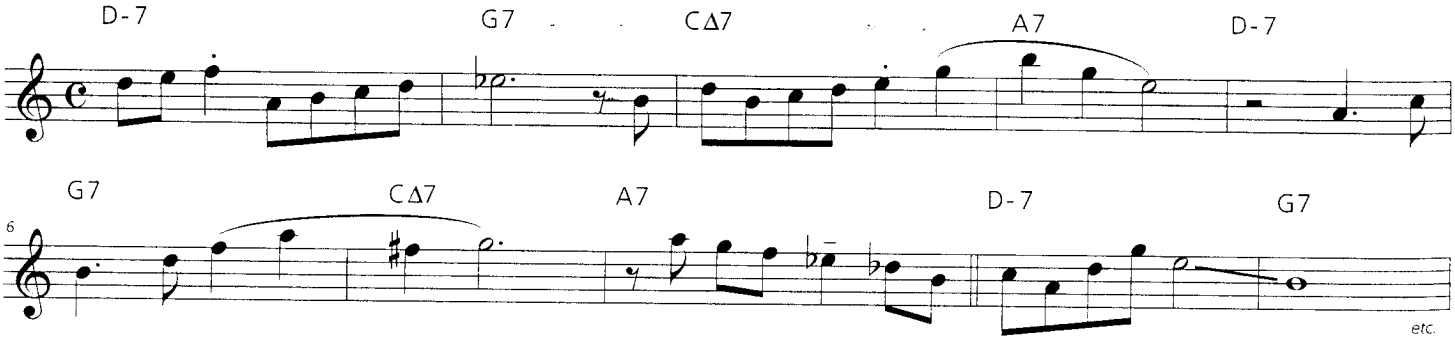
Practice at slow, medium and fast tempos, with and without accompaniment, in various time signatures, etc.

Syncopation, Exercises #1-5

Select a harmonic setting, tempo and mode of accompaniment. Using the play/rest approach, improvise in the following ways throughout the solo:

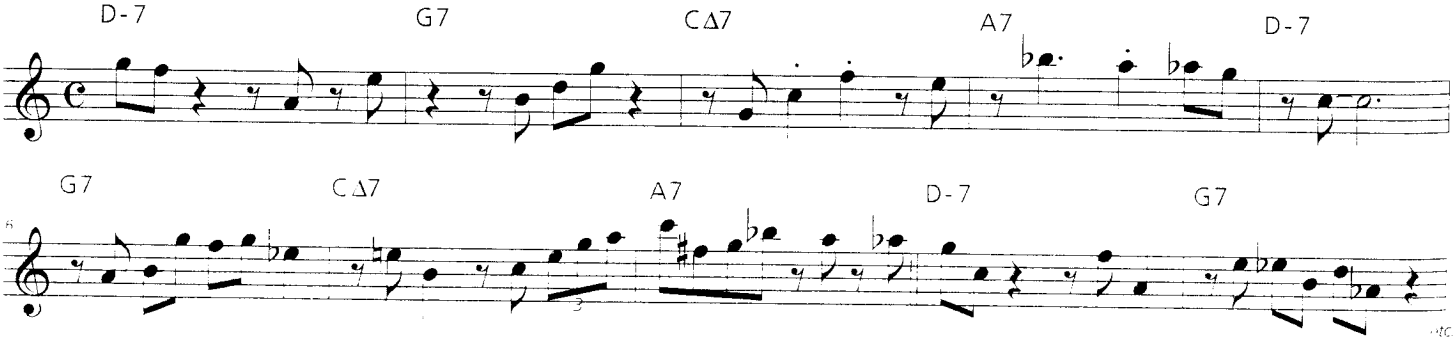
1. Each phrase involves little or no syncopation (end phrases on downbeats, minimize use of anticipations).

Example III:57R



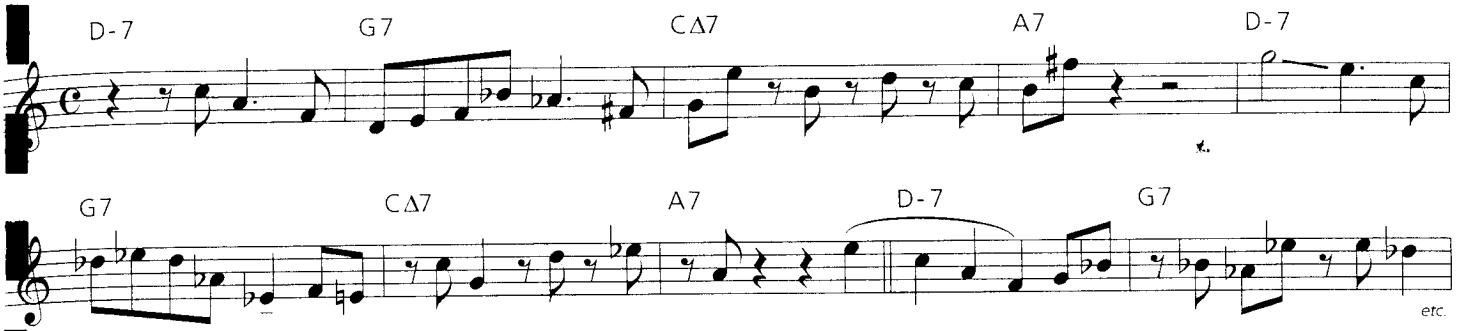
2. Each phrase involves extreme syncopation.

Example III:58R



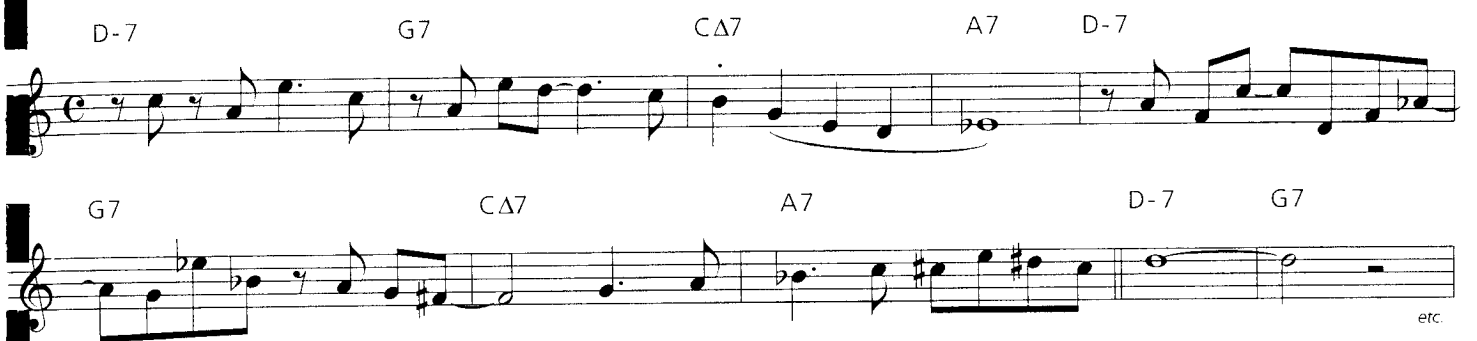
3. Each phrase begins unsyncopated (for several beats or bars) and ends syncopated (for several beats or bars).

Example III:59R



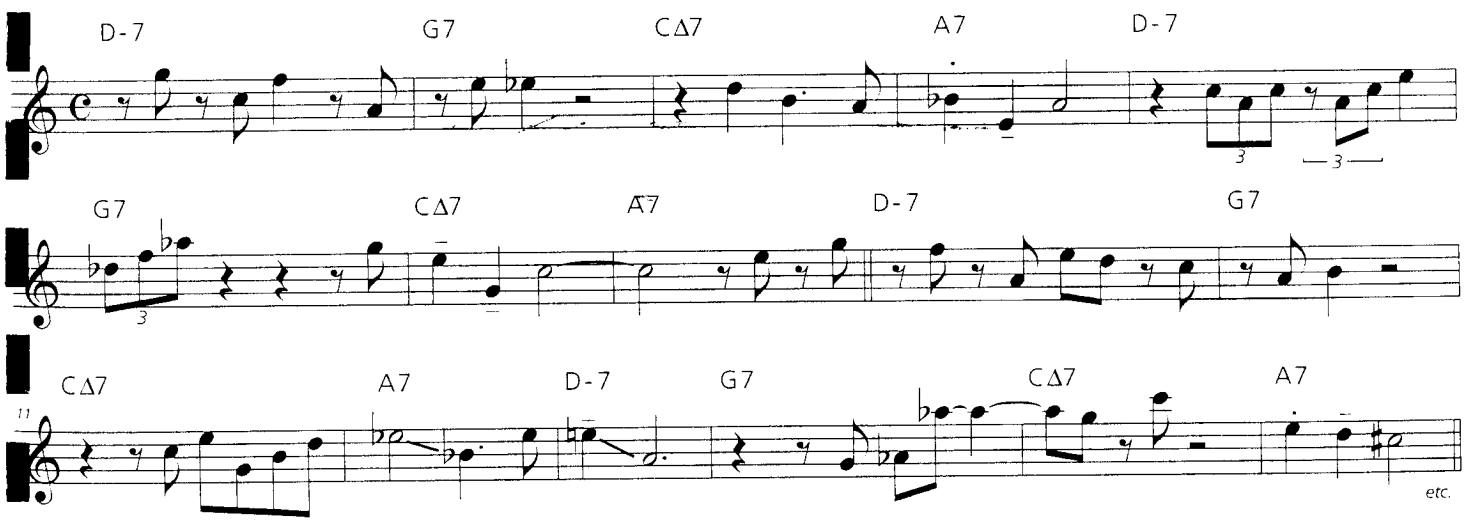
4. Each phrase begins syncopated and ends unsyncopated.

Example III:60R



5. Rotate phrases throughout the solo between syncopated and unsyncopated, e.g. 1st phrase uses syncopation, 2nd phrase uses no syncopation, 3rd phrase uses syncopation, 4th phrase uses no syncopation, etc.

Example III:61R



Example: Daily Practice Schedule - Syncopation

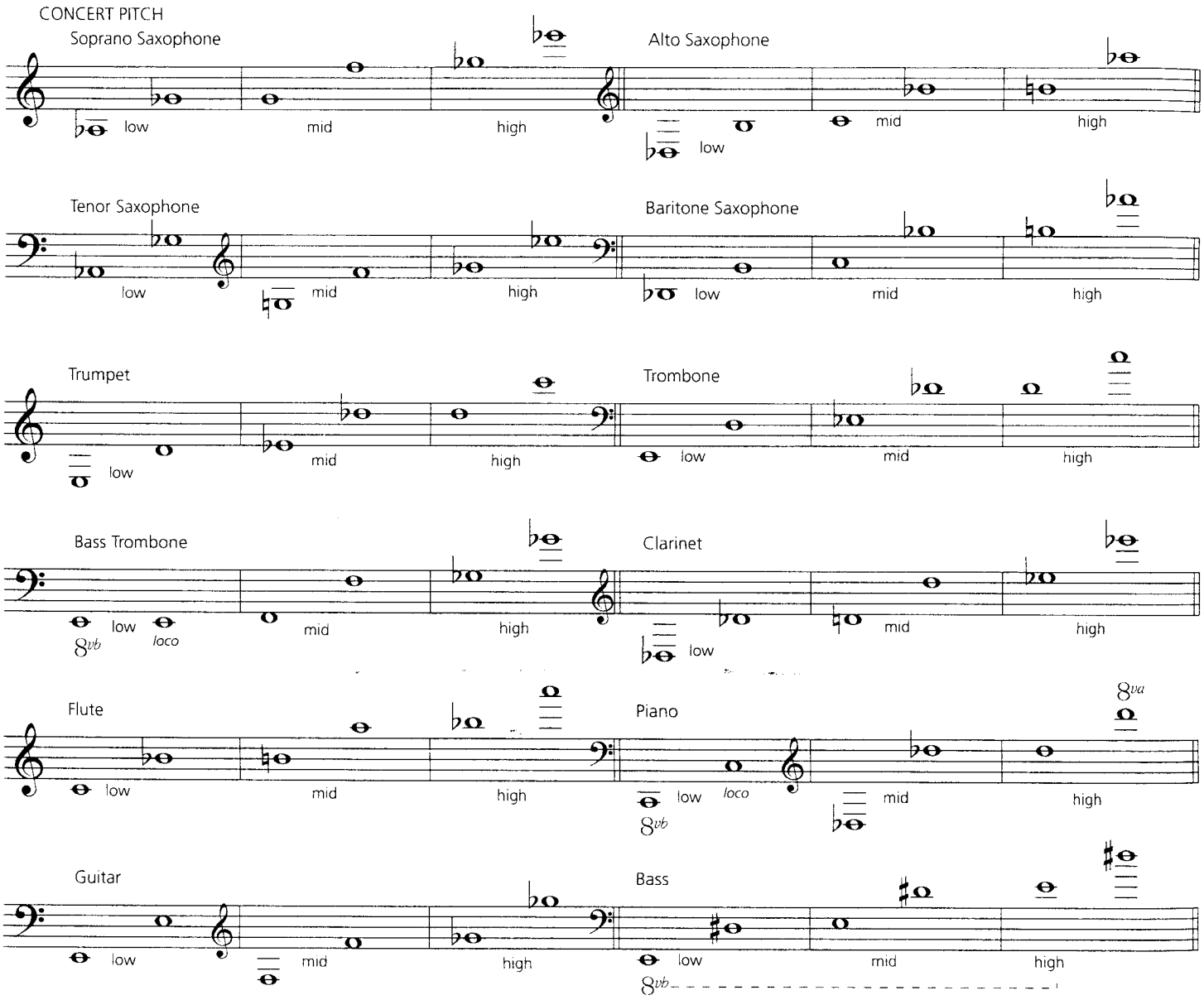
1. 10 minutes on exercise #1.
2. 10 minutes on exercise #2.
3. 10 minutes on exercise #3.
4. 10 minutes on exercise #4.
5. 10 minutes on exercise #5.
6. 10 minutes on the spirit and mood of the music.

Instrument Registers

For various reasons, a particular register (low, middle or high) of an instrument is sometimes favored (i.e. used more frequently) by players in their improvising. However, each register can be developed. This is simply a matter of using the particular register you want or need to develop more regularly, to become more familiar with its characteristics.

Begin by identifying the relative limits of the 3 registers (low, middle and high) on your instrument. This can be determined by dividing the distance from the lowest note you can (comfortably) play to the highest note you can play into three more or less equal sections - low, middle and high.

Example III:62



[Note: Drum registers: bass drum and large tom-tom (low), snare drum and small tom-tom (middle) cymbals (high).]

Instrument Registers - Exercises #1-7

Select a harmonic setting, tempo, and mode of accompaniment. Using the play/rest approach, improvise in the following ways throughout the solo:

1. Each phrase is confined to the middle register.
2. Each phrase is confined to the low register.
3. Each phrase is confined to the high register.
4. Each phrase spans the low and middle registers (in any order).
5. Each phrase spans the middle and high registers (in any order).
6. Each phrase spans the low, middle and high registers (in any order).
7. Each phrase is confined to either the low, middle or high register (in any order).

Daily Practice Schedule - Instrument Registers

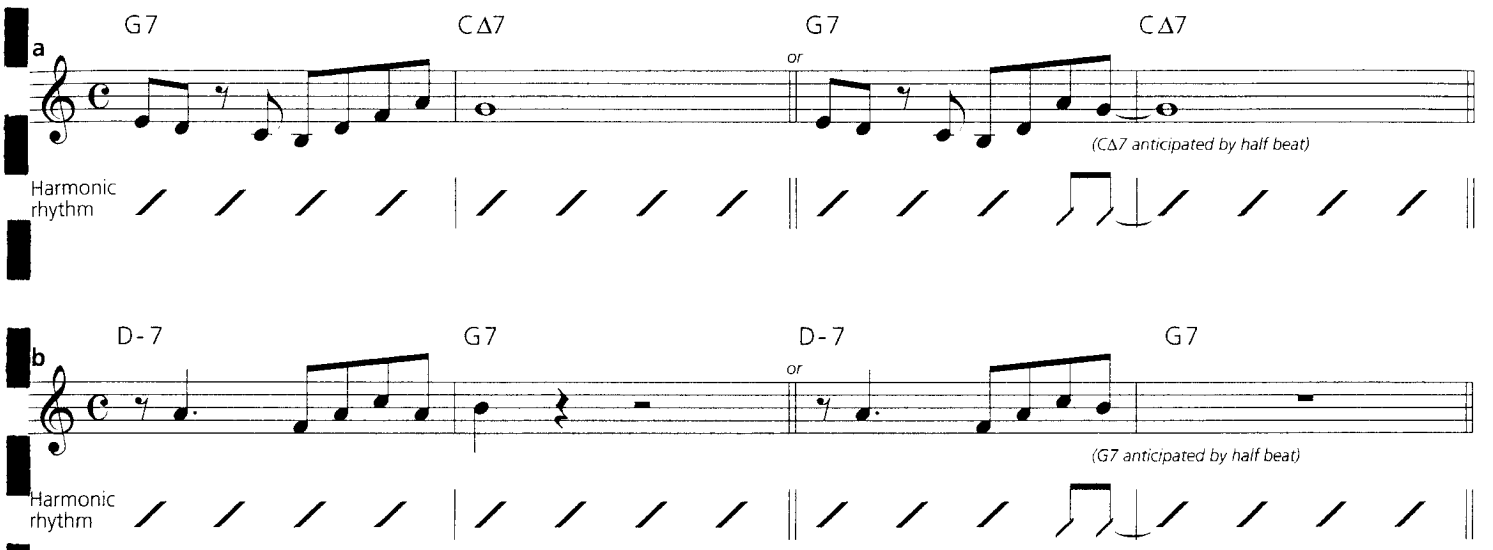
1. 10 minutes on exercise #1.
2. 10 minutes on exercise #2.
3. 10 minutes on exercise #3.
4. 10 minutes on exercise #4.
5. 10 minutes on exercise #5.
6. 10 minutes on exercise #6.
7. 10 minutes on exercise #7.
8. 10 minutes on the spirit and mood of the music.

Over-The-Bar-Line (Or Beat-Line) Phrasing

A melody cadences when it arrives at a temporary or permanent point of rest or inactivity, achieved by using either a rest or a sustained note of 1 1/2 beats or more, depending on the tempo. (Faster tempos can require longer rest or inactivity.)

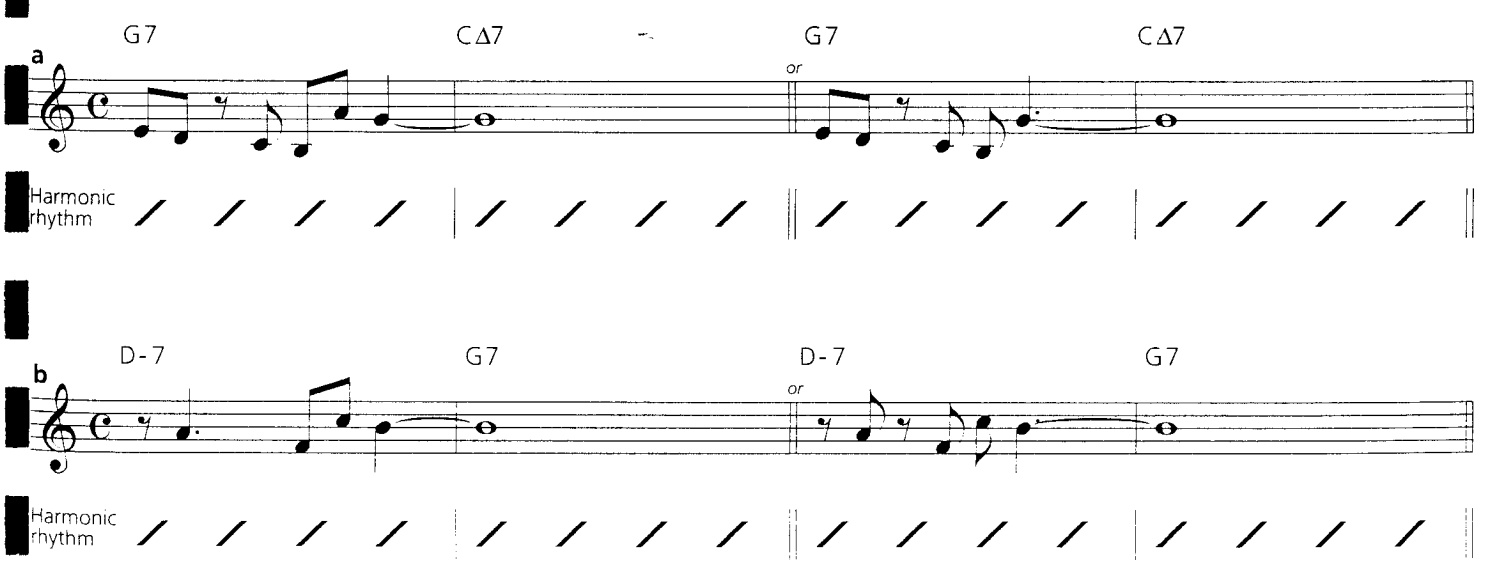
A melodic phrase is the period of activity before (or after) a point of melodic rest. Often the ending of a melodic phrase will coincide rhythmically with a chord change, thereby linking the melody to the harmony through rhythm as well as pitch.

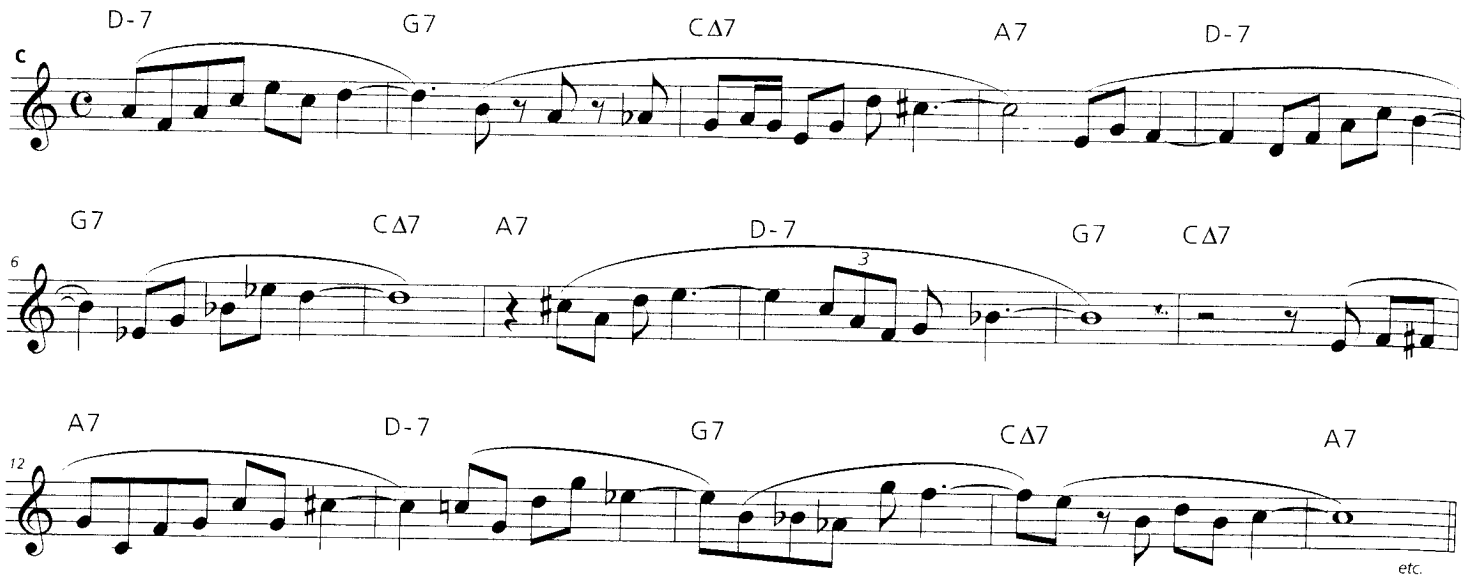
Example IV:1R



Over-the-bar-line (or beat-line) phrasing occurs when *a melodic phrase ends with a sustained note at least one full beat or more before a chord change* (i.e. the melody cadences before the harmony changes). The sustained note is then held over the bar line (or beat line) for at least 1/2 beat, and usually longer, while the chord changes.

Example IV:2R

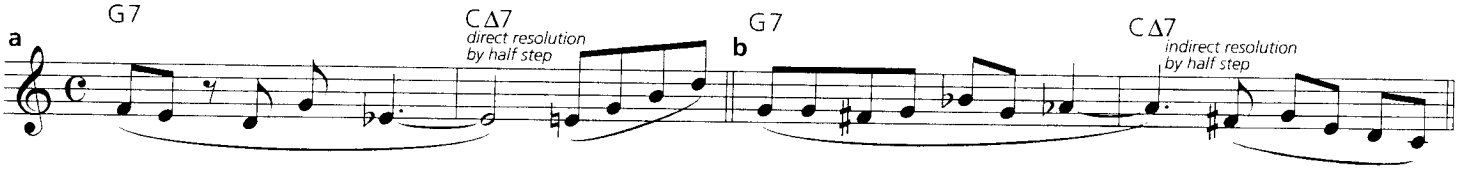




Over-the-bar-line (or beat-line) phrasing will often produce the effect of anticipating the next chord in the progression.

[Note: If the sustained note at the end of the melodic phrase is not chord sound on the next chord, it should resolve directly or indirectly by step (preferably 1/2 step) when the next melodic phrase begins, or within a few beats time.]

Example IV:3R

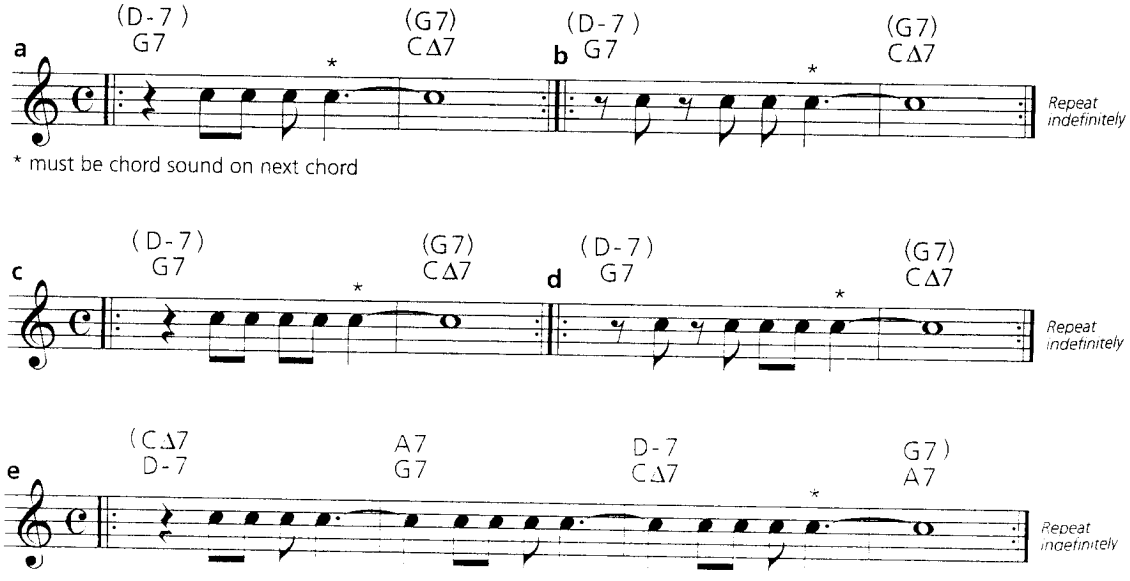


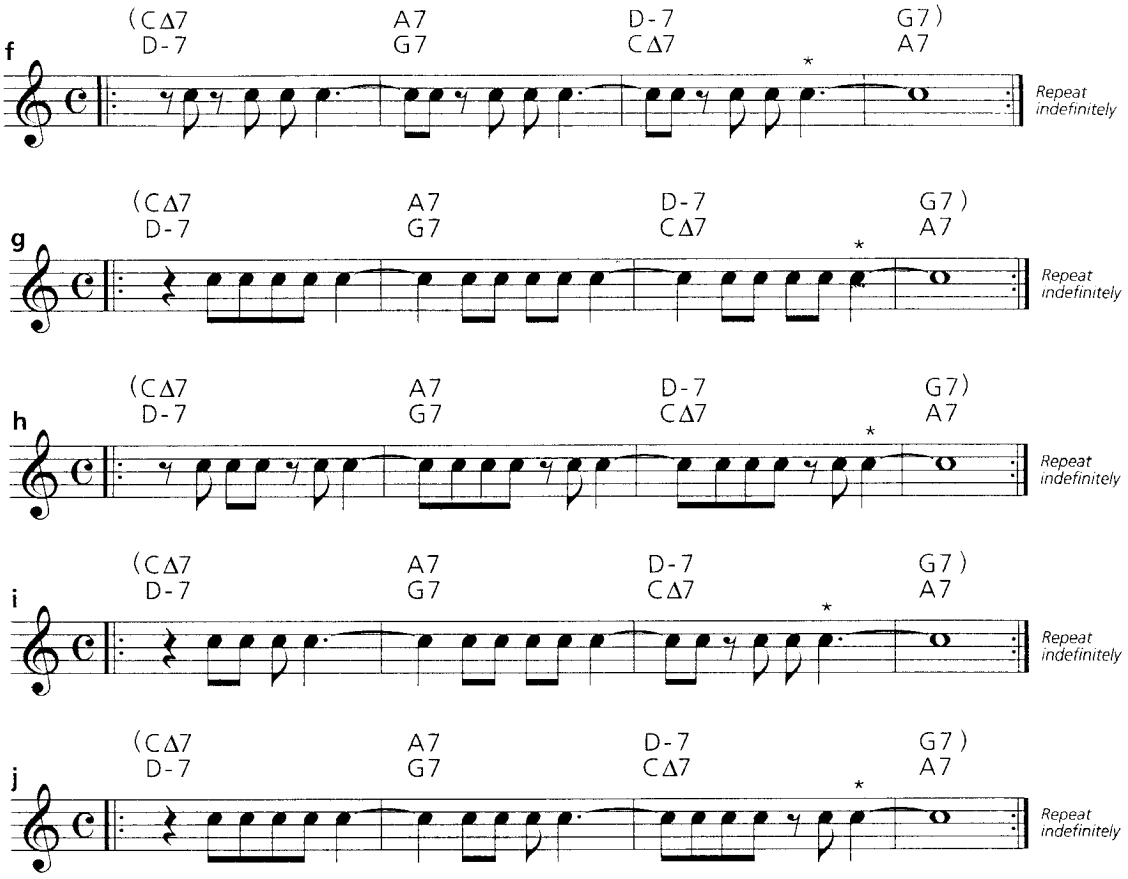
Over-The-Bar-Line (or Beat-Line) Phrasing, Exercises #1 and 2

[Note: Drummers should play a concerted cymbal and drum attack for the last note of each phrase, letting the cymbal ring to create the effect of a sustained note.]

1. Using a comping tape, improvise in tempo on the following chord patterns using these rhythms but choosing your own melody notes. Assign appropriate chord scale first. (Transpose chord patterns to other keys and repeat exercises.)

Example IV:4





2. Using the play/rest approach and a comping tape, improvise in tempo on a chord pattern or tune progression applying over-the-bar-line phrasing (1) at pre-selected places, and (2) at will (see Example IV:2c, Page 132).

   [Note: May mark pre-selected places on chord sheet with *.]

Example: Daily Practice Schedule, Over-The-Bar-Line (or Beat-Line) Phrasing

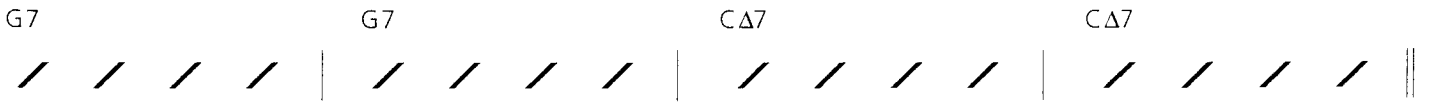
1. 50 minutes on exercise #1 (in various keys).
2. 30 minutes on exercise #2.
3. 10 minutes on the spirit and mood of the music.

Contracting Chord Duration

Contracting chord duration means the soloist contracts (shortens) the duration of a selected chord in a progression by 1 (or more) beats, thereby anticipating the change to the next chord.

Example IV:5

Rhythm section plays the original harmonic rhythm:



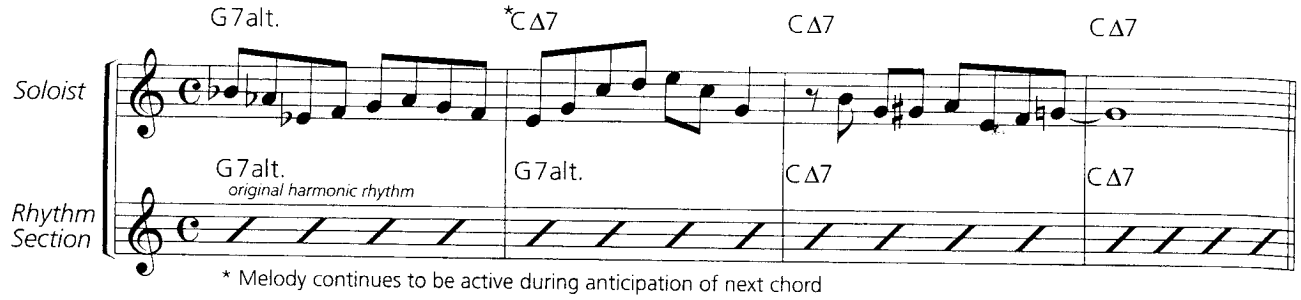
while soloist plays:

G7 is contracted by 4 beats.

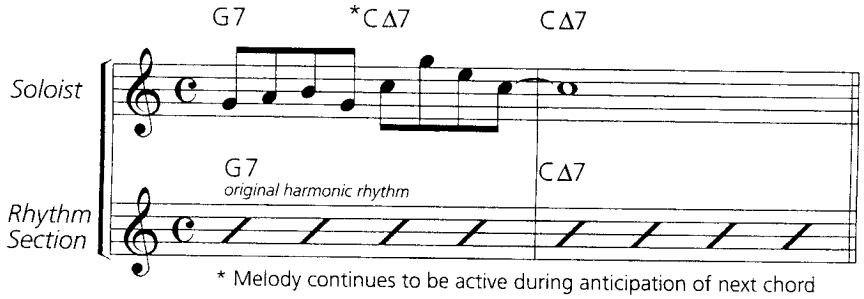
CΔ7 is anticipated by 4 beats.

Contracting chord duration will sound like over-the-bar-line phrasing if the melodic phrase ends with a sustained note during the anticipation. Therefore, the melody must continue to be active for a few beats or so while the anticipation is made.

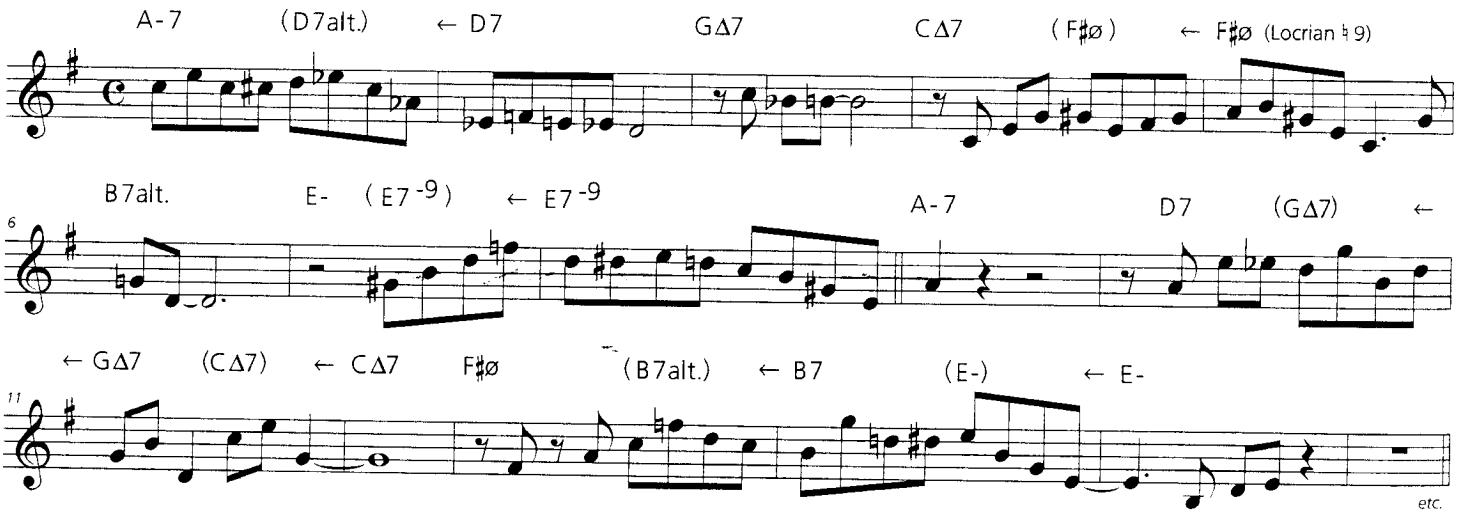
Example IV:6R



Example IV:7R



Example IV:8R



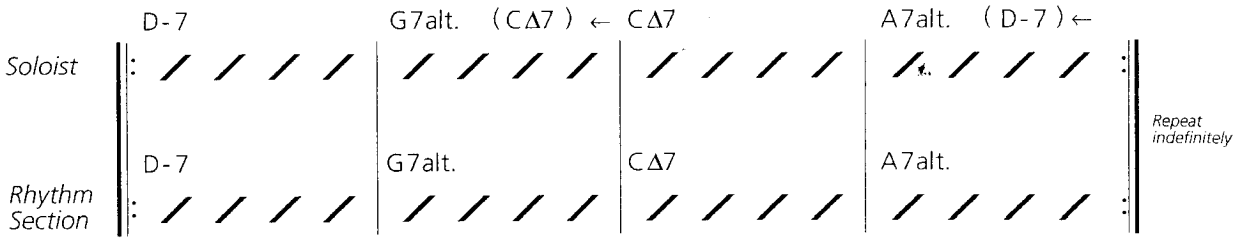
IMPORTANT!

During the anticipation of a chord, the (improvised) melody must clearly and obviously outline its chord sound. Arpeggiating the chord tones of the anticipated chord may accomplish this well, otherwise use available tensions (9ths, 11ths, 13ths). The proper result is achieved by featuring those notes which are foreign (or non-harmonic) to the *original* chord or chord scale. Often a triad arpeggio or pentatonic scale is effective. See previous examples IV:6, IV:7, IV:8.

Contracting Chord Duration, Exercises #1-4

1. Using the play/rest approach and a comping tape, improvise in tempo on any 2 or 4-chord pattern which creates harmonic contrast while contracting the 1st and 3rd chord by 2 beats or so (i.e., anticipating the 2nd and 4th chord). Example (4-chord pattern):

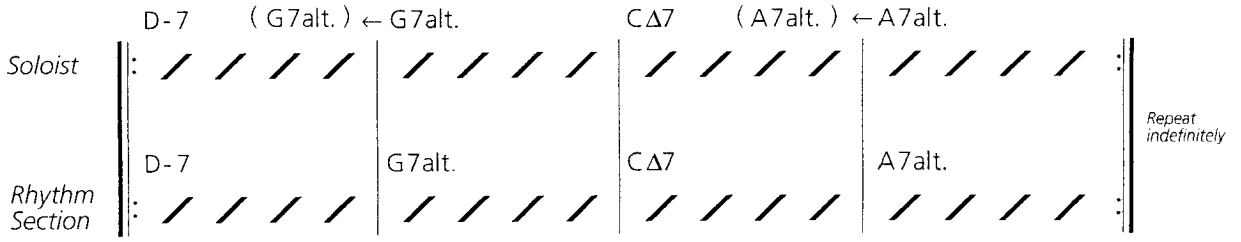
Example IV:9



[Note: To make these exercises easier, play 2 bars then rest 2 bars throughout the solo. Reverse: Rest 2 bars then play 2 bars, etc.]

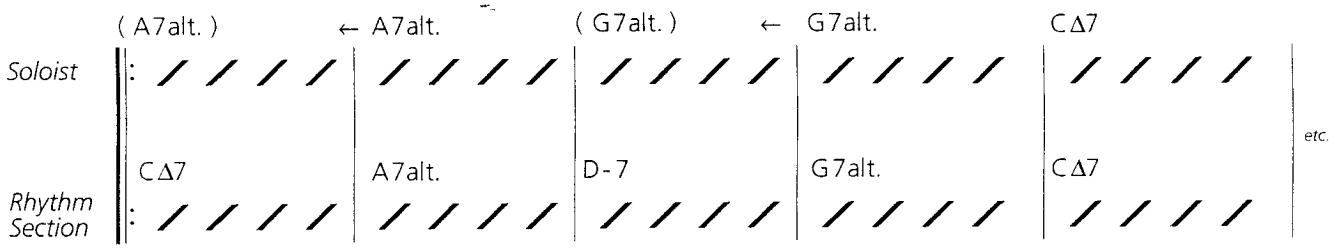
2. Repeat #1 above but contracting the 2nd and 4th chords by 2 beats or so (i.e., anticipating the 1st and 3rd chord).

Example IV:10



3. Using the play/rest approach and a comping tape, improvise in tempo on a tune progression while contracting chord duration of pre-selected chords. Add chord symbols of anticipated chords in parentheses to original chord sheet.
[Note: Sometimes it is effective to *entirely* contract the duration of a chord, which is okay to do *after* you have first demonstrated an ability to play accurately and musically on the original chord progression.]

Example IV:11



4. Using the play/rest approach and a comping tape, improvise in tempo on a tune progression while contracting chord duration at will.

Example: Daily Practice Schedule, Contracting Chord Duration

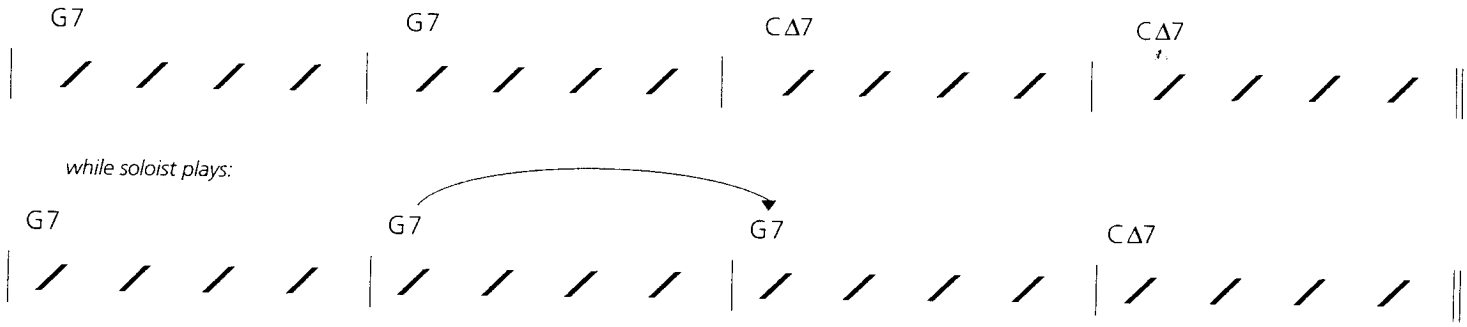
1. 15 minutes on exercise #1 (in various keys).
2. 15 minutes on exercise #2 (in various keys).
3. 10 minutes on exercise #3.
4. 10 minutes on exercise #4.
5. 10 minutes on the spirit and mood of the music.

Expanding Chord Duration

Expanding chord duration means the soloist extends (lengthens) the duration of a selected chord in a progression by 1 (or more) beats into the next chord of the progression, thereby delaying the change to the next chord.

Example IV:12

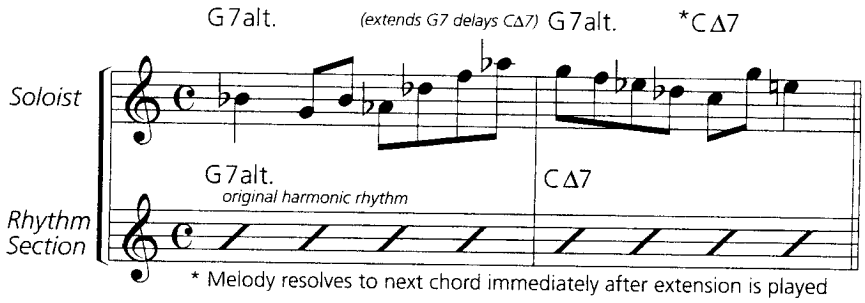
Rhythm section plays the original harmonic rhythm:



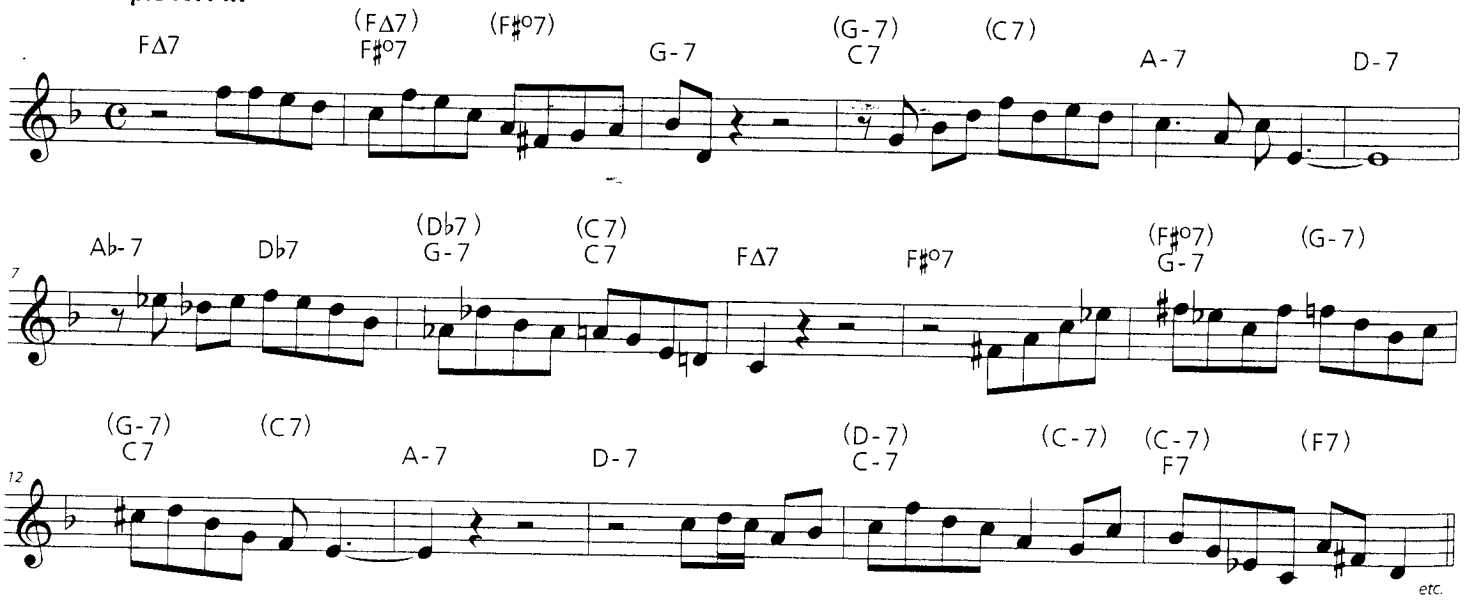
G7 is extended by 4 beats. CΔ7 is delayed by 4 beats.

Normally, after an extension is played the (improvised) melody resolves immediately to the next chord, creating the desired effect of tension/release.

Example IV:13R



Example IV:14R

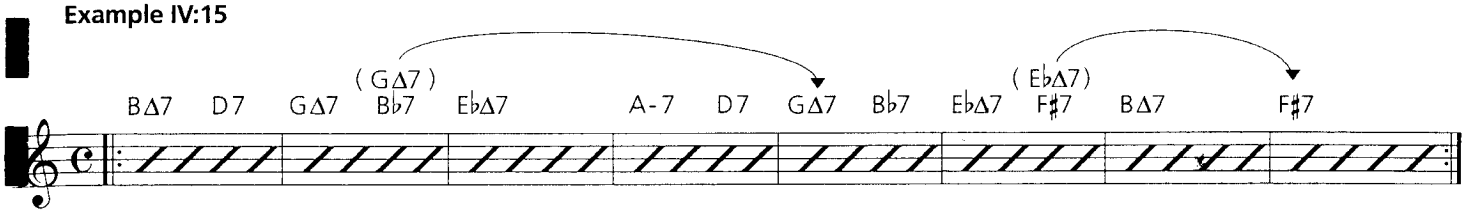


IMPORTANT!

During the extension of a chord, the (improvised) melody must clearly and obviously outline its chord sound. Arpeggiating the chord tones of the extended chord may accomplish this well, otherwise use available tensions (9ths, 11ths, 13ths). The proper result is achieved by featuring those notes which are foreign (or non-harmonic) to the *original* chord or chord scale. Often a triad arpeggio or pentatonic scale is effective. See previous examples: IV: 13, IV:14.

[Note: Sometimes an extension can continue for one or more measures, effectively cancelling out a chord (or chords) from the original progression. This is okay to do *after* you have first demonstrated an ability to play accurately and musically on the original chord progression]

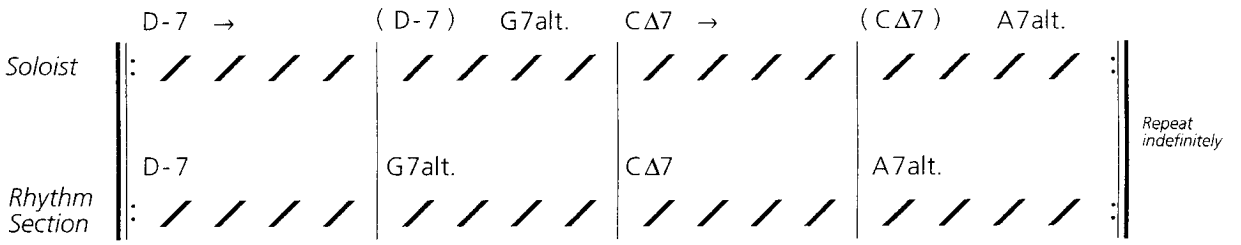
Example IV:15



Expanding Chord Duration, Exercises #1-4

1. Using the play/rest approach and a comping tape, improvise in tempo on any (2 or) 4-chord pattern while extending the 1st and 3rd chord by 2 beats or so (i.e. delaying the 2nd and 4th chord). Example (4-chord pattern):

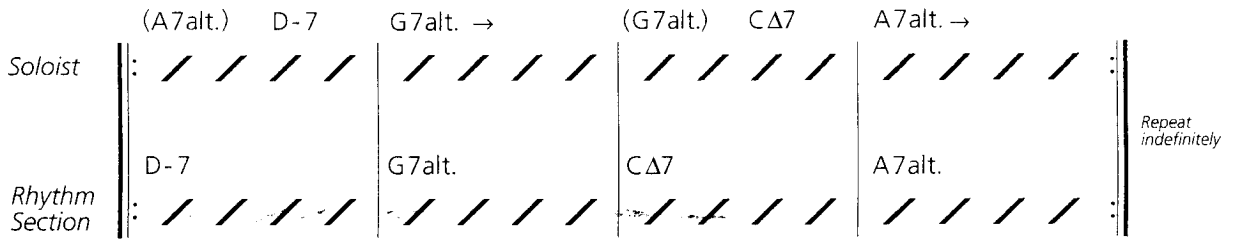
Example IV:16



[Note: To make these exercises easier, play 2 bars then rest 2 bars throughout the solo. Reverse: Rest 2 bars then play 2 bars, etc.]

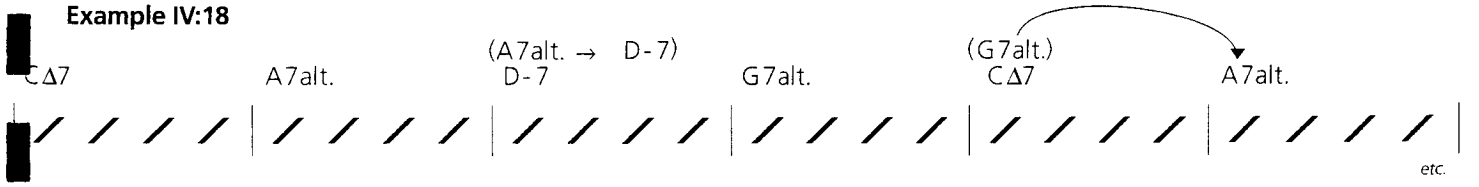
2. Repeat #1 above but extending the 2nd and 4th chord by 2 beats or so (i.e., delaying the 1st and 3rd chord).

Example IV:17



3. Using the play/rest approach and a comping tape, improvise in tempo on a tune progression while expanding chord duration of pre-selected chords. Add chord symbols of extended chords in parentheses to original chord sheet.

Example IV:18



4. Using the play/rest approach and a comping tape, improvise in tempo on a tune progression while expanding chord duration at will.

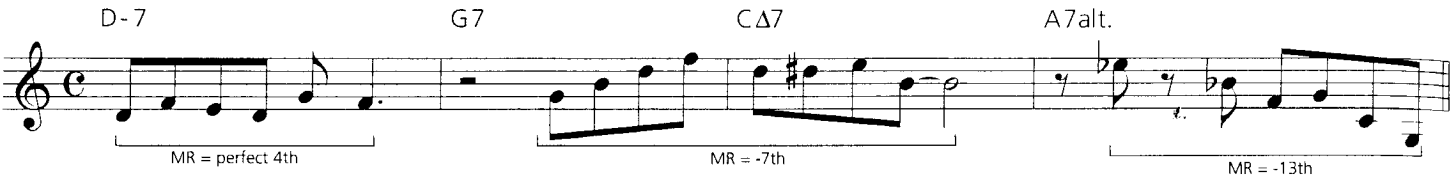
Example: Daily Practice Schedule, Expanding Chord Duration

1. 15 minutes on exercise #1 (in various keys).
2. 15 minutes on exercise #2 (in various keys).
3. 10 minutes on exercise #3.
4. 10 minutes on exercise #4.
5. 10 minutes on the spirit and mood of the music.

Melodic Range

The melodic range of a phrase or idea is the distance or interval from the lowest note in the phrase to the highest note. (MR = melodic range)

Example IV:19



Playing phrases with different melodic ranges will help to create variety and interest in an improvised solo, and therefore is important to practice. Melodic range can be divided into two categories with different divisions of range in each. These categories are: 1) small and large, or 2) small, medium and large.

Begin by assigning interval limits for each size within a specific category.

1.

Small	Large
within a perfect octave	greater than a perfect octave

2.

Small	Medium	Large
within a 6th	between a 6th and a10th	greater than a 10th

The assigned range limit can vary. It can also be considerd a "ball-park" figure, i.e. an approximation, when applied during exercises. For example, if the chosen interval limit for a small melodic range is "within a 6th", then each phrase using a small melodic range should be in the vicinity of a 6th interval or less. Pitchwise, the phrases can occur in any register on the instrument - low, middle or high. Rangewise, they must conform as closely as possible to the interval limits you select and assign.

[Note: The low note and high note of a phrase may occur anywhere within the phrase. But sometimes it is effective to play the low note and high note early in the phrase to outline the limits of the melodic range right away, making it easier to play within them for the duration of the phrase.]

Melodic Range, Exercises #1 and 2

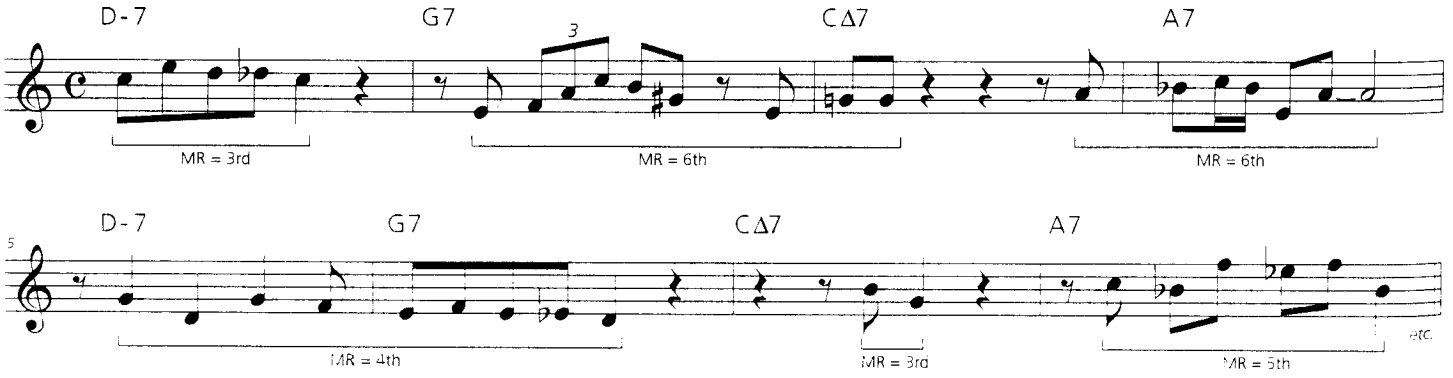
1. Practice becoming more aware of the melodic range of each idea or phrase you play in an improvised solo. Use the play/rest approach to (1) mark the end of each idea with rest, and (2) allow time to asses the melodic range of each idea after you've played it. Begin by assessing the range in general terms - as in small, medium and large. Then gradually try to be more specific - as in determining the actual interval of the range, e.g. major 9th, minor 7th, augmented 4th, etc. Practice using various harmonic settings, tempos, and modes of accompaniment.

   [Note: This exercise can be practiced while listening to recordings of improvised solos as well.]

2. Select a harmonic setting, tempo and mode of accompaniment. Using the play/rest approach and the melodic range limits indicated above (or your own), improvise in the following ways throughout the solo:

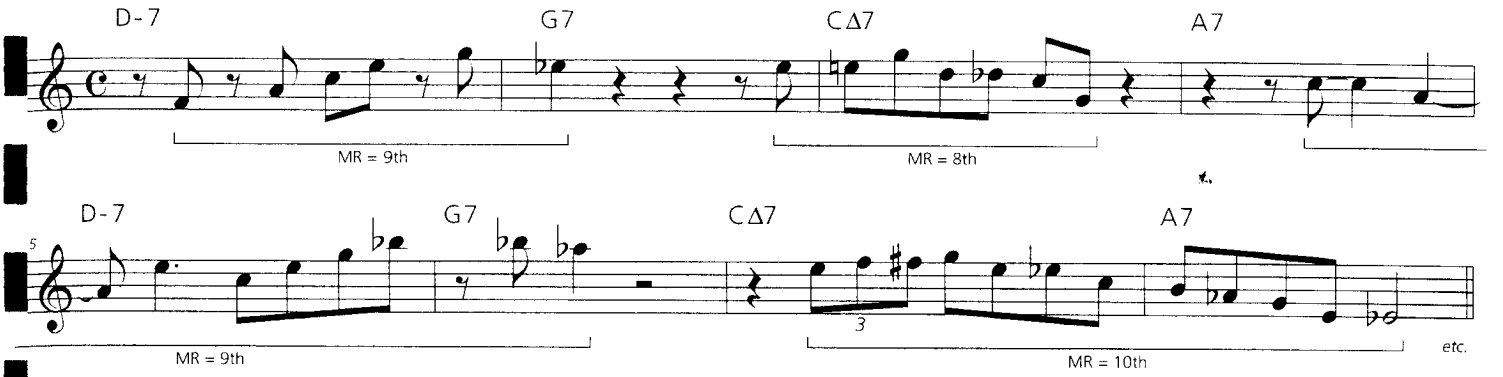
   a) Each phrase uses small melodic range.

Example IV:20R



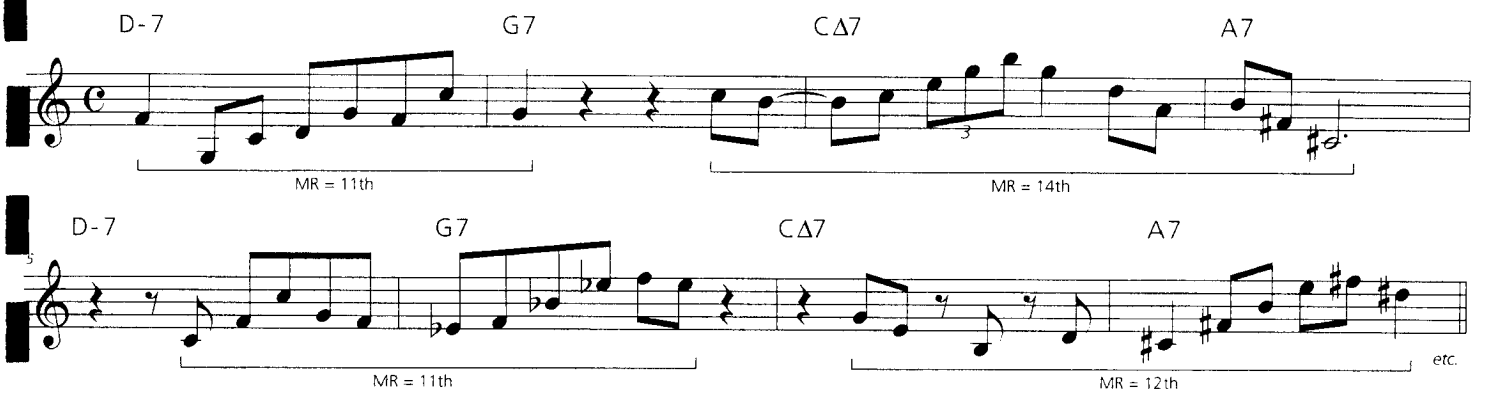
b) Each phrase uses medium melodic range.

Example IV:21R



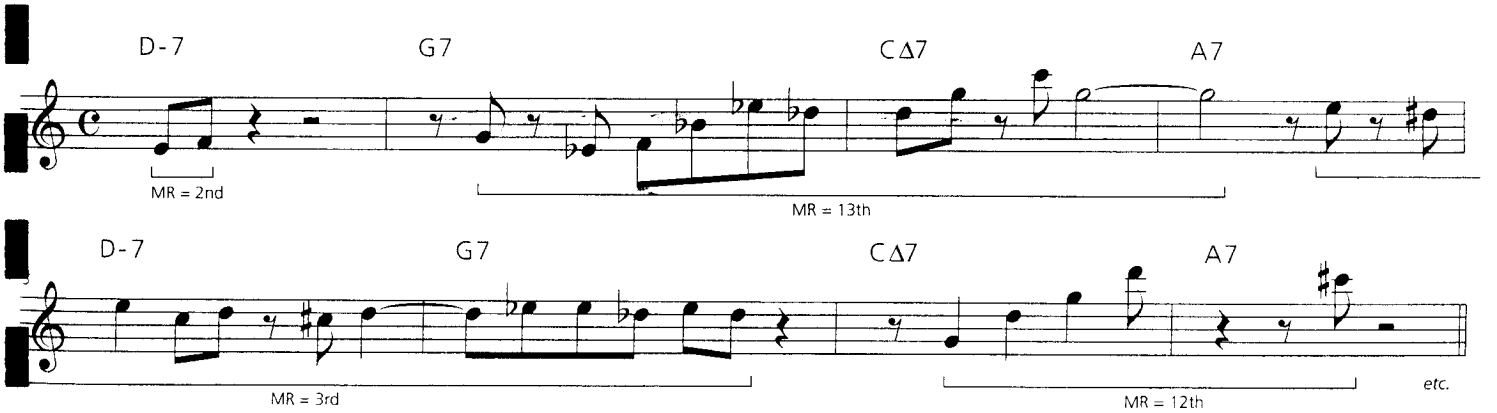
c) Each phrase uses large melodic range.

Example IV:22R



d) Rotate phrases: 1st phrase uses small melodic range, 2nd phrase uses large melodic range, etc.

Example IV:23R



[Note: Remember to vary the phrase lengths and rhythmic density of the phrases as well. E.G., short, dense phrases with large melodic range; or long, sparse phrases with small melodic range, etc.]

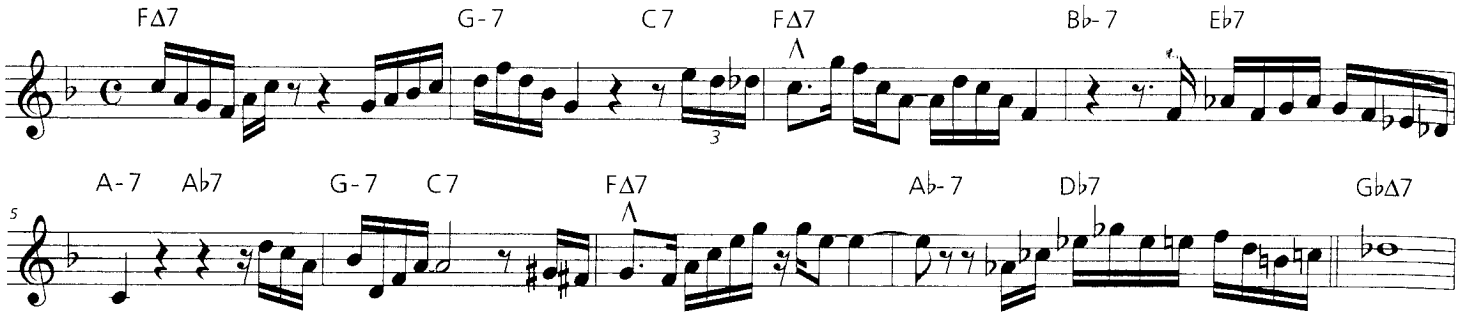
Example: Daily Practice Schedule, Melodic Range

1. 20 minutes on exercise #1.
2. 15 minutes on exercise #2a.
3. 15 minutes on exercise #2b.
4. 15 minutes on exercise #2c.
5. 15 minutes on exercise #2d.
6. 10 minutes on the spirit and mood of the music.

Double Time

Double time is a special effect which occurs when one or more players make the tempo sound twice as fast as the original tempo. The soloist usually initiates this by playing melodic phrases comprised of 16th note rhythms while the chords continue to pass at the original tempo. These rhythms should incorporate syncopation and anticipations as well to create forward motion in the melody line.

Example IV:24R



As a special effect, double time should be used sparingly, at slow to medium tempos. However, at times the accompanying players will double the tempo with the soloist and the whole band will play the new tempo (twice as fast as the original) for a period of time while the chords continue to change at the original tempo. Returning to "normal" time (or the original tempo) is also initiated by the soloist, usually at a major subdivision in the song's form, e.g. the bridge (middle section).

For our purposes, the accompanying players will remain playing at the original tempo while only the soloist plays double time.

Practice the upcoming double time exercises where the original tempo is: ♩ = 100 or higher. Use the following settings:

1. a single pitch (note) and rhythm only (i.e. no melody or harmony)
2. "free" melody and rhythm only (i.e. no harmonic restriction)
3. a single chord, unlimited duration (modal style)
4. a chord pattern (using an appropriate single pitch first)
5. a tune progression (using an appropriate single pitch first)

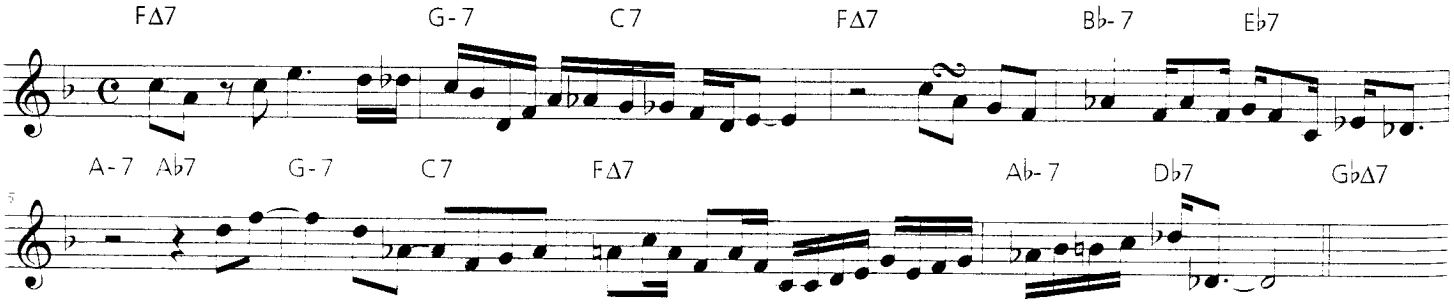
[Note: In the beginning, make the original tempo slow enough so that you can easily execute short phrases (3-6 notes or so) in double time. Gradually increase the original tempo and the lengths of the phrases as you practice. Remember to use rest or space after each idea. This will enable you to control your playing better.]

Double Time, Exercises #1-6

After selecting an appropriate tempo, harmonic setting and mode of accompaniment, improvise using the play/rest approach and apply the following instructions throughout the solo:

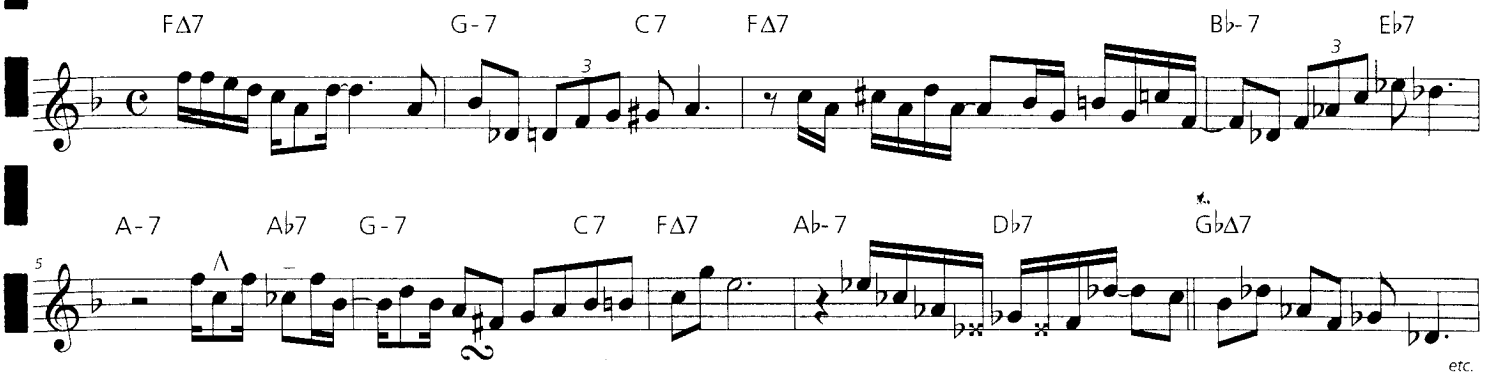
1. Each idea played in "normal" time (i.e. at original tempo, *no* double time).
2. Each idea played in double time.
3. Rotate phrases: 1st phrase in normal time, 2nd phrase in double time, etc.
4. Each phrase begins in normal time, ends in double time.

Example IV:25R



5. Each phrase begins in double time, ends in normal time.

Example IV:26R



6. Use double time as a special effect at will throughout the solo.

Example: Daily Practice Schedule - Double Time

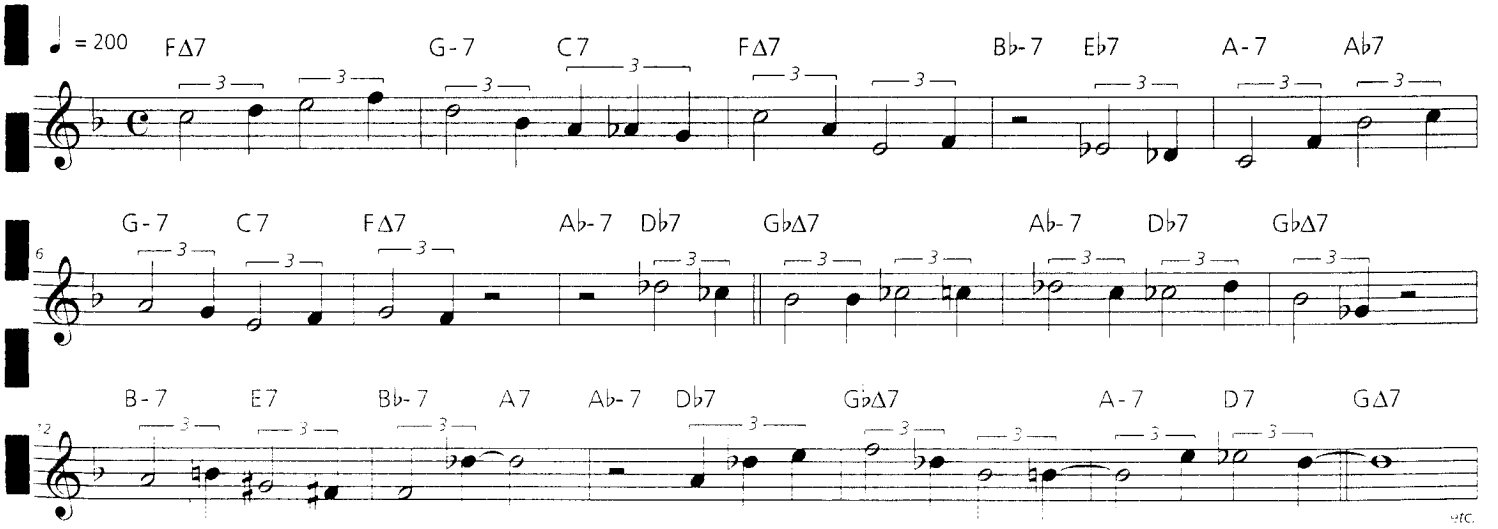
Using a single note, "free" melody, single chord, chord pattern or tune progression:

1. 5 minutes on exercise #1.
2. 10 minutes on exercise #2.
3. 10 minutes on exercise #3.
4. 10 minutes on exercise #4.
5. 10 minutes on exercise #5.
6. 10 minutes on exercise #6.
7. 5 minutes on the spirit and mood of the music.

Half Time

Half time is a special effect which occurs when one or more players make the tempo sound half as fast as the original tempo. The soloist usually initiates this by playing or rhythms while the chords continue to pass at the original tempo. Syncopation and anticipations can be incorporated to create forward motion in the melody line.

Example IV:27R



As a special effect, half time should be used sparingly, at medium-fast to fast tempos. For our purposes, the accompanying players will remain playing at the original tempo while only the soloist plays half time.

Practice the upcoming half time exercises where the original tempo is: ♩=184 or higher. Use the following settings:

1. a single pitch (note) and rhythm only (i.e. no melody or harmony)
2. "free" melody and rhythm only (i.e. no harmonic restriction)
3. a single chord, unlimited duration (modal style)
4. a chord pattern (using an appropriate single pitch first)
5. a tune progression (using an appropriate single pitch first)

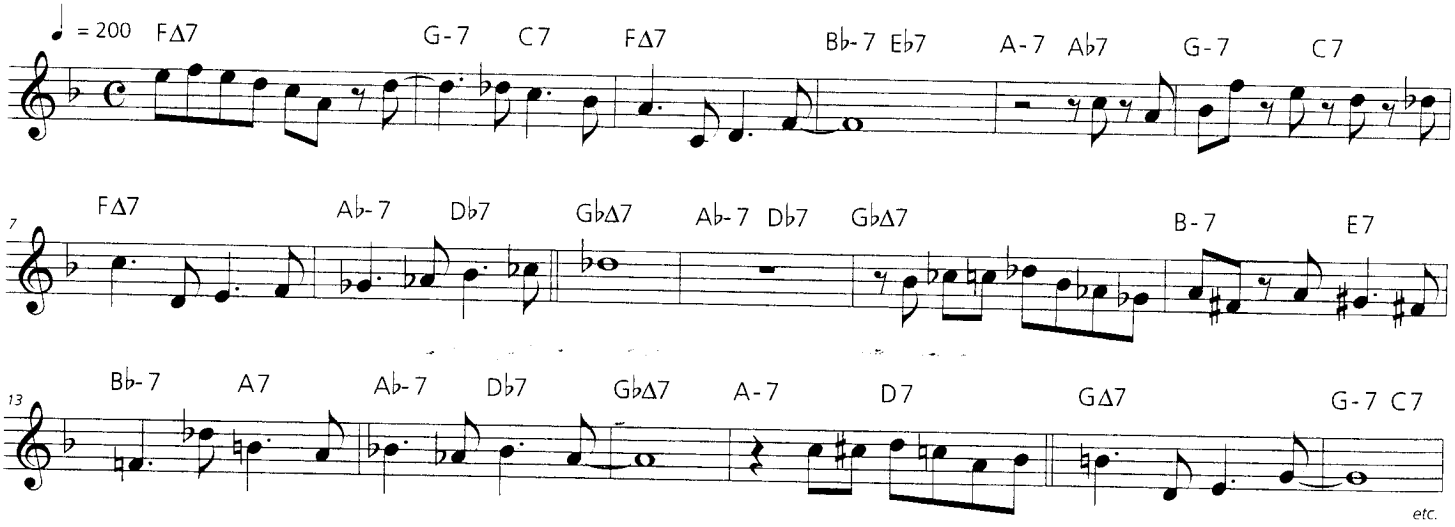
[Note: In the beginning, make the original tempo fast enough so that you can easily execute phrases in half time. Using rest or space after each idea will enable you to control your playing better also.]

Half Time, Exercises #1-6

After selecting an appropriate tempo, harmonic setting and mode of accompaniment, improvise using the play/rest approach and apply the following instructions throughout the solo:

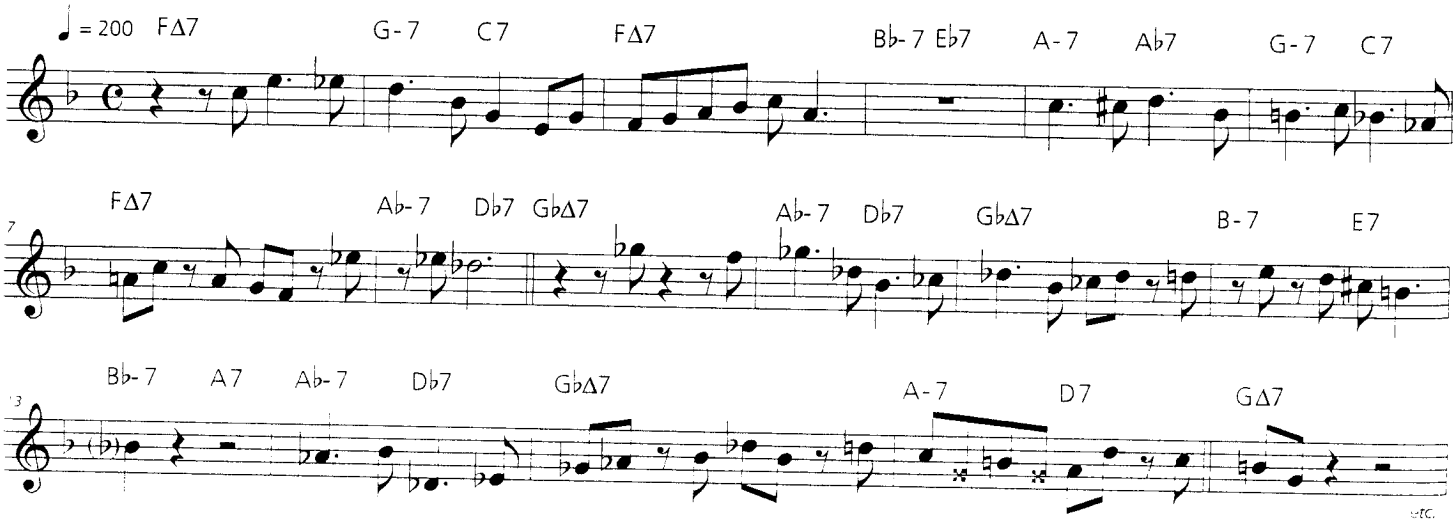
1. Each idea played in "normal" time (i.e. at original tempo, *no* half time).
2. Each idea played in half time.
3. Rotate phrases: 1st phrase in normal time, 2nd phrase in half time, etc.
4. Each phrase begins in normal time, ends in half time.

Example IV:28R



5. Each phrase begins in half time, ends in normal time.

Example IV:29R



6. Use half time as a special effect at will throughout the solo.

Example: Daily Practice Schedule - Half Time

Using a single note, "free" melody, single chord, chord pattern or tune progression:

1. 5 minutes on exercise #1.
2. 10 minutes on exercise #2.
3. 10 minutes on exercise #3.
4. 10 minutes on exercise #4.
5. 10 minutes on exercise #5.
6. 10 minutes on exercise #6.
7. 5 minutes on the spirit and mood of the music.

Peak Points

An improvised solo will often start out at a low level of intensity (i.e. low volume, less activity, more space, etc.) and build more or less gradually toward higher levels. Although other approaches are certainly possible to begin a solo, this is a popular one because it enables the soloist to control and develop the direction of the solo from the beginning, under more relaxed, less demanding conditions.

As the solo builds in intensity toward and throughout each peak section, the soloist and accompanying players get energy from the excitement created. Ideally, this energy is used to maintain a cool, relaxed state of mind (similar to how air conditioning works!) and to keep the music under constant intuitive control.

The peak points in a solo can vary in quantity (from one to several) and degree of intensity (from mild to strong). Once reached, they may be sustained for various lengths of time also, e.g. a few beats, several measures, a full chorus, the remainder of the solo. Sustaining highly intense peak points for long periods of time requires considerable instrumental control and endurance by the soloist as well as proper support from the accompanying players.

During highly intense peak periods, the accompanying players must stoke or fan the intensity level of the music so that it doesn't drop, especially when the soloist pauses for a breath or rest or to create space in the melody line. Space is important during building periods and peak periods of the solo for musical reasons, and, in the case of certain instruments (e.g. trumpet and trombone etc.), for endurance reasons as well.

The soloist's responsibility is to cue or signal the accompanying players to sustain the peak section. This is achieved primarily through consistently loud or strong playing by the soloist (matched by the accompanying players) *but not necessarily through constant playing* - unless that is the soloist's desire.

To signal the end of a peak section, the soloist decreases the volume (and perhaps the activity) of his/her playing and maintains it at a lower level. The accompanying players follow the soloists's lead, and generally do not initiate changes in the intensity level unless the soloist is incapable of doing so. *Accompanying players maintain the present level until cued or signalled by the soloist to change.*

Shorter, less intense peak periods are more often executed by the soloist alone. However, experienced, alert accompanying players will sometimes support them as well, depending on how long the peaks last or how obvious the build-up is which leads to them, etc.

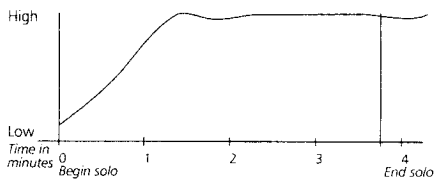
The following exercises are best practiced with at least one accompanying player (e.g. piano, guitar, vibes, bass, drums) and preferably more, but may also be practiced with comping tapes or a metronome only, or no accompaniment.

Peak Points, Exercises #1-4

Select a harmonic setting, tempo and mode of accompaniment. Improvise using the play/rest approach in the following ways:

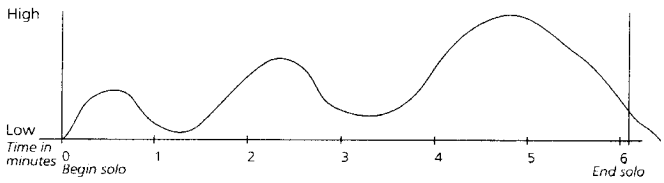
1. Begin the solo at a low level of intensity (low volume, less activity). Gradually build the intensity over a period of one minute or so toward a strong peak. Sustain the peak period for another 2 minutes or so by playing at a loud volume. Use long and frequent periods of space (or rest) during the peak section to give accompanying player(s) opportunities to practice supporting and sustaining the intensity level without the soloist. End the solo at a high level of intensity. (See example of intensity curve below.)

Example IV:30



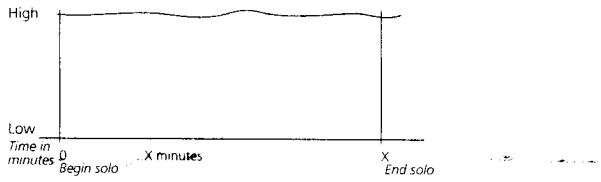
2. Begin the solo at a low level of intensity. Gradually build the intensity over a period of 20-30 seconds or so toward a strong (or mild) peak. Sustain the peak for a short period of time (10-20 seconds or so). Gradually taper-off the intensity level for 20-30 seconds, returning to more or less the original starting level. Repeat this procedure several times throughout the solo, ending at a low level of intensity. (See example of intensity curve below.)

Example IV:31



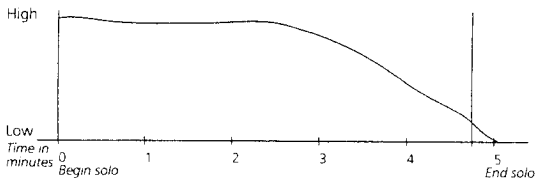
3. Begin the solo at a high level of intensity, i.e. with a peak. Sustain the peak throughout the entire solo by playing at a loud volume, using long and frequent periods of space. End the solo at a high level of intensity. (See example of intensity curve below.)

Example IV:32



4. Begin the solo at a high level of intensity, i.e. with a peak. Sustain the peak over a period of two minutes or so by playing at a loud volume, using long and frequent periods of space. Gradually taper-off the intensity level over a perod of two minutes or so. End the solo at a low level of intensity. (See example of intensity curve below.)

Example IV:33



Example: Daily Practice Schedule - Peak Points

1. 20 minutes on exercise #1.
2. 20 minutes on exercise #2.
3. 20 minutes on exercise #3.
4. 20 minutes on exercise #4.
5. 10 minutes on the spirit and mood of the music.

Solo Lengths

From a macroscopic point of view (overall view), an improvised solo should deliver a musical message or statement with a sense of completeness to it - that is, with a beginning, middle and end. The length or duration of the solo will obviously influence its structure and development in this regard.

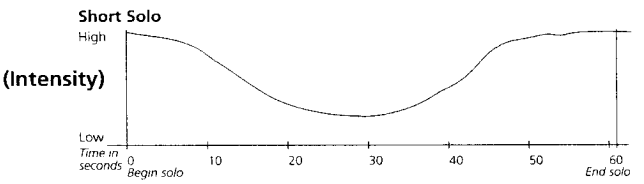
With short solos (generally less than one minute) the challenge is to achieve this completeness in a relatively small amount of time, similar to the way the plot of a short story unfolds and concludes. Each solo's ending should be clear, obvious and musical.

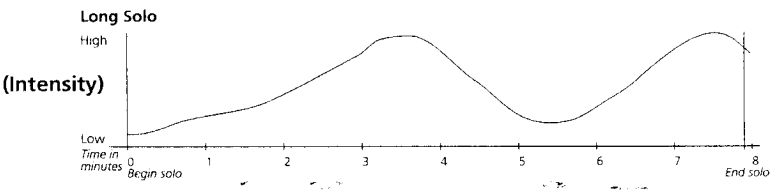
Longer solos require a different timing or pacing of ideas, more like a novel than a short story. The challenge is to achieve a sense of completeness while pursuing many different directions and/or developments of ideas without losing the general continuity of the solo. Each solo's ending should be clear, obvious and musical.

The different directions pursued in a short or long solo might include some of the following: loud and soft playing; dense and sparse playing; motif development and through-composed (no development, contrasting ideas); long phrases and short phrases; strong rhythmic definition and floating time; wide melodic intervals and stepwise motion, etc.

Both short and long solos can be practiced by predetermining the amount of time (and/or choruses) each solo will last. The intensity or dynamic curve of the solo as well as specific topics (see above) can be predetermined to guide the solo's development.

Examples IV:34





[Note: A timer-clock is helpful for practicing various solo lengths, especially when using a single chord, chord pattern or "free" playing.]

Solo Lengths, Exercises #1-3

After selecting a harmonic setting, tempo, and mode of accompaniment, improvise using the play/rest approach in the following ways:

1. Play short solos ranging from 30 to 45 seconds in duration each. Concentrate on achieving a sense of completeness by featuring one pair of musical opposites throughout each solo, e. g. loud and soft playing or long and short phrases etc. End each solo clearly, obviously and musically.
2. Play longer solos ranging from 1 to 3 minutes in duration each. Concentrate on achieving a sense of completeness by featuring two or three pairs of musical opposites during each solo. End each solo clearly, obviously and musically.
3. Play extended solos ranging from 4 to 8 minutes in duration each. Concentrate on achieving a sense of completeness by featuring several pairs of musical opposites during each solo. End each solo clearly, obviously and musically.

Example: Daily Practice Schedule - Solo Lengths

1. 20 minutes on exercise #1.
2. 20 minutes on exercise #2.
3. 20 minutes on exercise #3.
4. 10 minutes on the spirit and mood of the music.

Non-Harmonic Triads

A non-harmonic triad is any (major) triad which contains at least one note that is non-harmonic to the chord or chord scale of the moment. (See material on Non-Harmonic Melody Notes in Section I.) For example, the non-harmonic major triads for the CΔ7 chord are: D♭, E♭, E, F, G♭, A♭, A, B♭ and B.

Sustaining or arpeggiating non-harmonic major triads over chords in an improvised solo creates a bitonal effect (two tonal areas occurring simultaneously), i.e. of playing "outside" the original or intended chord. This has rather recently become a popular special effect among more modern or contemporary improvisors.

Minor and augmented triads can be used too, but major triads are preferable due to their relative brightness and familiarity, and also because they clearly identify a distinct tonal area.

It is, of course, important to first learn to improvise tonally, or "inside" a chord before attempting to play "outside" the chord. In fact, playing outside a particular chord simply means playing inside an alternate one, e.g. the soloist plays inside the B major chord while a CΔ7 chord is sounded. To do this consciously requires considerable musical and instrumental ability. Therefore, being capable of strong inside playing will make your outside playing strong also, since outside playing is actually inside playing on another chord!

Remember that outside playing is a special effect, and as such it is best used sparingly with the utmost concern for musicality, and only when it is stylistically appropriate.

There are six major concerns regarding outside playing using non-harmonic major triads. They are:

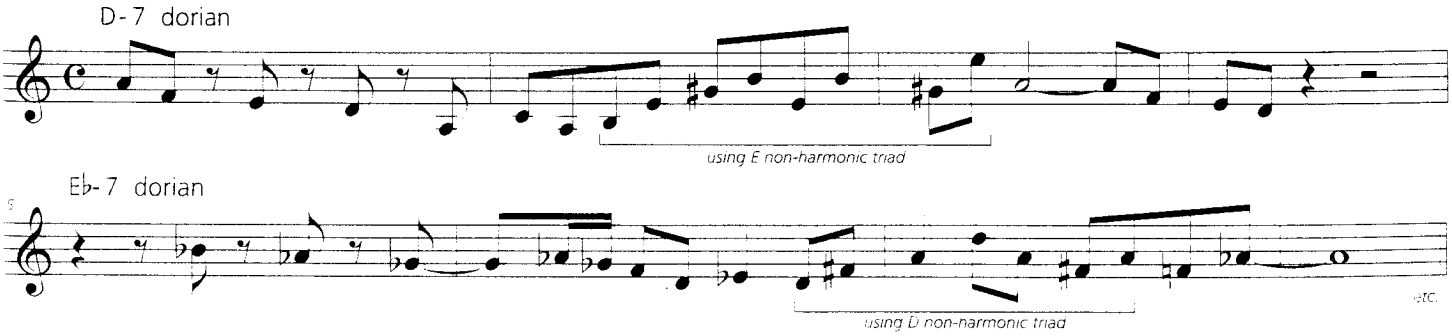
1. Knowing when and where in the chord progression it is feasible and will sound appropriate;
2. Selecting a major triad which creates an appealing non-harmonic sound in relation to the original chords and harmonic context;
3. Playing extremely inside (or tonally) on the outside chord (non-harmonic triad), with confidence and conviction, to clearly establish a bitonal effect;
4. Regulating how much and how often outside playing is used throughout a solo;
5. Executing the melodic movement from inside to outside and back again to inside *within a single melodic phrase.*
6. Playing inside the intended chords first, then using outside playing as a special effect.

[Note: After acquiring some ability with the above, it is not always necessary to resolve outside playing to inside within the same phrase. For example, the end of a phrase (or an entire phrase) may be played outside the chords, without resolving to the original chords until the next phrase begins.]

Regarding concern #1 above

The easiest and best situation in which to begin applying outside playing using non-harmonic major triads is with a single familiar chord of unlimited duration, or with a few chords of extended duration, i.e. modal progressions. This provides a greater amount of time for the soloist to (1) melodically indentify the original or intended chord sound, (2) introduce the selected non-harmonic triad using arpeggios, and (3) resolve to the original chord before (or as) it changes to the next chord in the progression.
[Note: The accompaniment must play the original or intended chords while only the soloist plays outside.]

Example V:1R



Another harmonic setting where non-harmonic major triads can be used is during a key-area progression which lasts for 2 bars (and preferably longer), such as:

|| II-7 | V7 | IΔ7 | ⁄ || or [|| II-7 | V7 || / || II-7 V7 | IΔ7 ||]

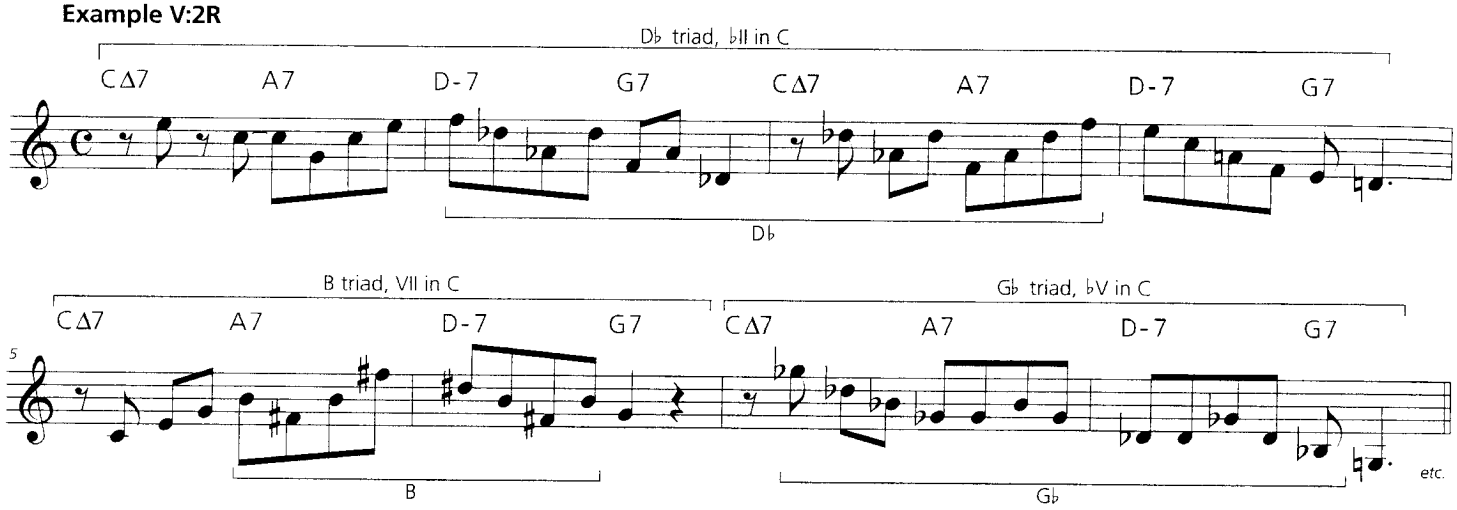
|| IΔ7 | VI-7 | II-7 | V7 || or || IΔ7 VI-7 | II-7 V7 ||

Other harmonic settings would include basic blues progressions, any "A" section of tunes based on the "I've Got Rhythm" chord progressions using AABA form, and even some chord combinations resulting in a modulation or a change of key area.

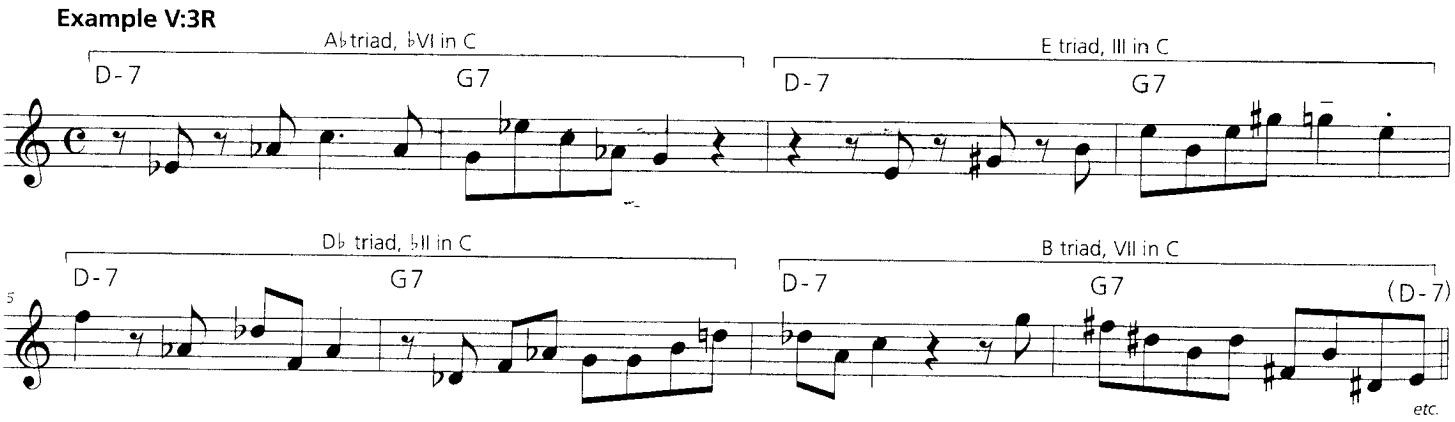
IMPORTANT: With the above mentioned key-area progressions, the selection of the non-harmonic triads can be based on the key-area itself rather than on each individual chord of the key-area progression. The triad selected need not be non-harmonic to *each* chord in the key area progression.

[Note: Play the chord progressions in the following examples several times *without* the written melody to first establish the sound of the intended key-area, then add the written melody.]

Example V:2R



Example V:3R



REMEMBER: Outside playing is most convincing and effective when used *after* demonstrating the ability to play inside the intended chords. This also allows the sound of the original chords to become established in the listener's ears before the special effects begin, which helps the soloist gain credibility.

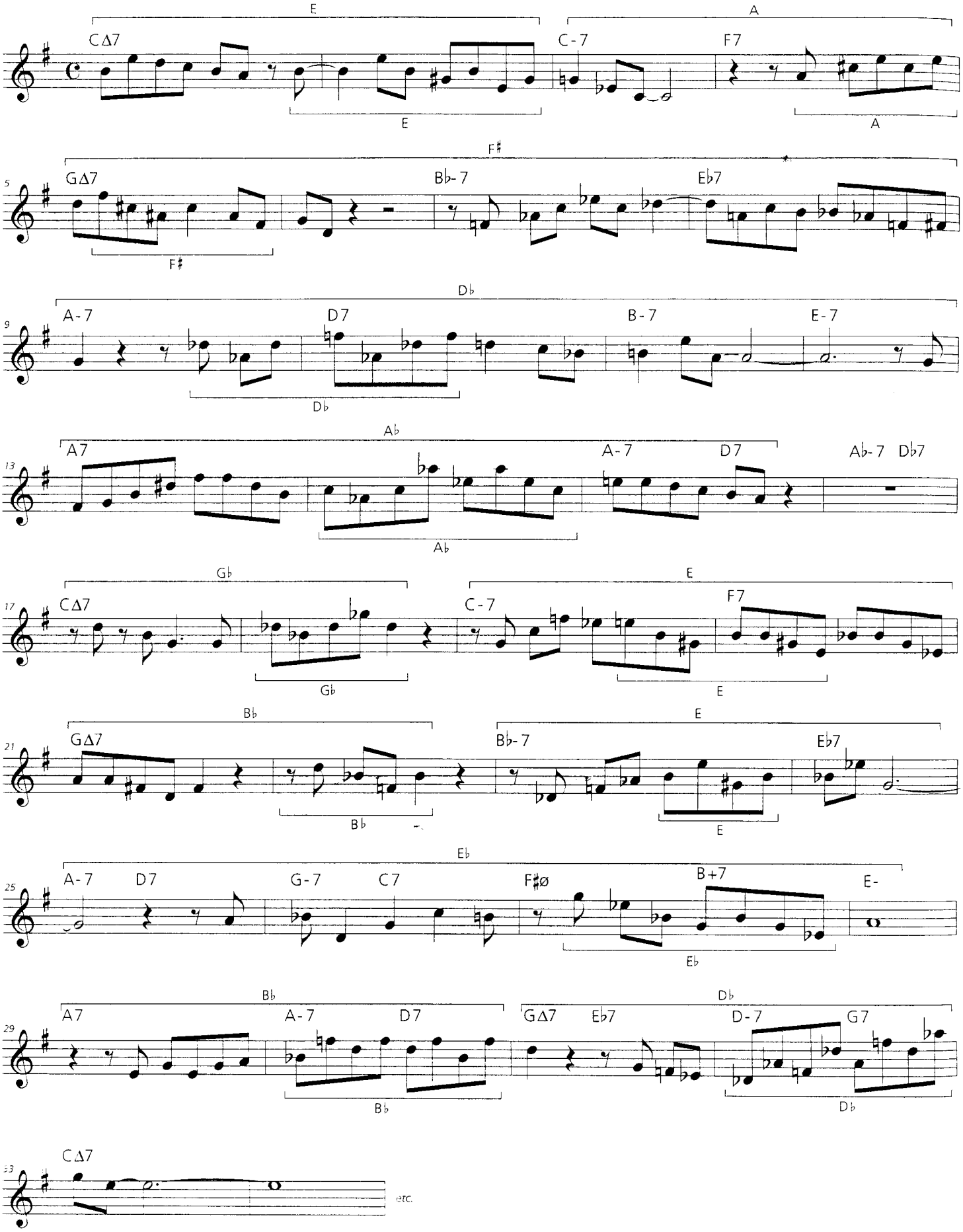
Regarding Concern #2 *(on page 147)*

Selecting an appealing non-harmonic major triad is primarily a matter of personal taste, but also depends on your ability to make it work, i.e. to execute it musically on your instrument.

Non-harmonic major triads which contain one or two guide tones or a colorful allowable tension of the original chord are sometimes good to begin with since they often sound less outside than others. Some examples are:

E NHT	A NHT	B NHT	D NHT	G NHT	B NHT	etc.
CΔ7	CΔ7	CΔ7	C-7	C-7	C-7	

Example V:4R


E
CΔ7
C-7
A
F7
E
A
F♯
GΔ7
Bb-7
Eb7
F♯
D♭
A-7
D7
B-7
E-7
D♭
A♭
A7
A-7
D7
Ab-7 Db7
A♭
G♭
CΔ7
E
C-7
F7
G♭
E
B♭
GΔ7
E
Bb-7
Eb7
B♭
E
E♭
A-7
D7
G-7
C7
F♯ø
B+7
E-
E♭
B♭
A7
A-7
D7
D♭
GΔ7
Eb7
D-7
G7
B♭
D♭
CΔ7
etc.

Example: Daily Practice Schedule - Non-Harmonic Triads

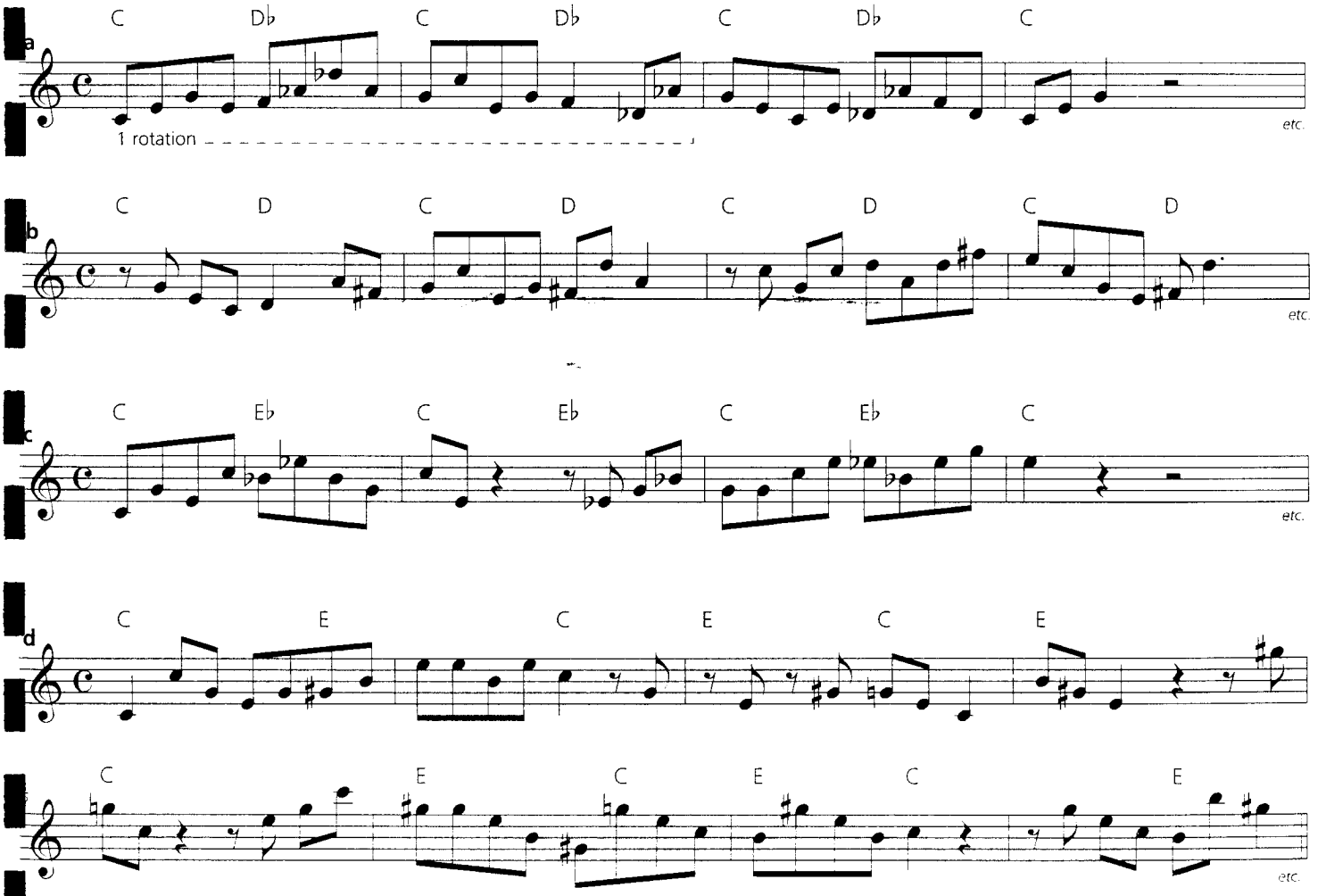
1. 15 minutes on exercise #1.
2. 15 minutes on exercise #2.
3. 15 minutes on exercise #3.
4. 15 minutes on exercise #4.
5. 20 minutes on exercise #5.
6. 10 minutes on the spirit and mood of the music.

Triad Couplings

Major triads can also be applied melodically in the form of "couplings" to chords of extended duration and key-area progressions. A triad coupling is simply a combination of 2 different major triads, applied using arpeggios. Examples are: C major and D♭ major, C major and D major, C and E♭, C and E, C and F, C and G♭, C and G, C and A♭, C and A, C and B♭, C and B.

Once all major triads have been practiced and learned individually, they may then be coupled and practiced in a rotating sequence with an assigned duration of 2 or more beats each, or with "free" duration. Practice the triad couplings using the play/rest approach and (primarily) 8th notes. Incorporate all the notes of each triad in the coupling as often as possible. Gradually work into syncopated rhythms, triplets, faster tempos, etc.

Example V:5R



Applying Triad Couplings

When a triad coupling (2 major triads) is applied to a single chord or key-area, each triad will have a relationship to that chord or key-area, and will function as either (1) a lower structure triad, (2) an upper structure triad, or (3) a non-harmonic triad.

The relationship of a major triad coupling to a given chord or key area will always produce one of the following combinations:

1. 1 lower structure triad and 1 upper structure triad
2. 1 lower structure triad and 1 non-harmonic triad
3. 1 upper structure triad and 1 non-harmonic triad
4. 2 upper structure triads
5. 2 non-harmonic triads

Examples:

Major triads coupled at various intervals	Chord applied to	Relationship of triads to chord
1. C major/D major (major 2nd)	CΔ7	C = lower structure triad D= upper structure triad
2. C/D♭ (minor 2nd)	C7	C = lower structure triad D♭ = non-harmonic triad
3. C/G♭ (augmented 4th)	D-7	C = upper structure triad G♭ = non-harmonic triad
4. C/E♭ (minor 3rd)	Eo7	C = upper structure triad E♭ = upper structure triad
5. C/F (perfect 4th)	A♭-7♭5	C = non-harmonic triad F = non-harmonic triad

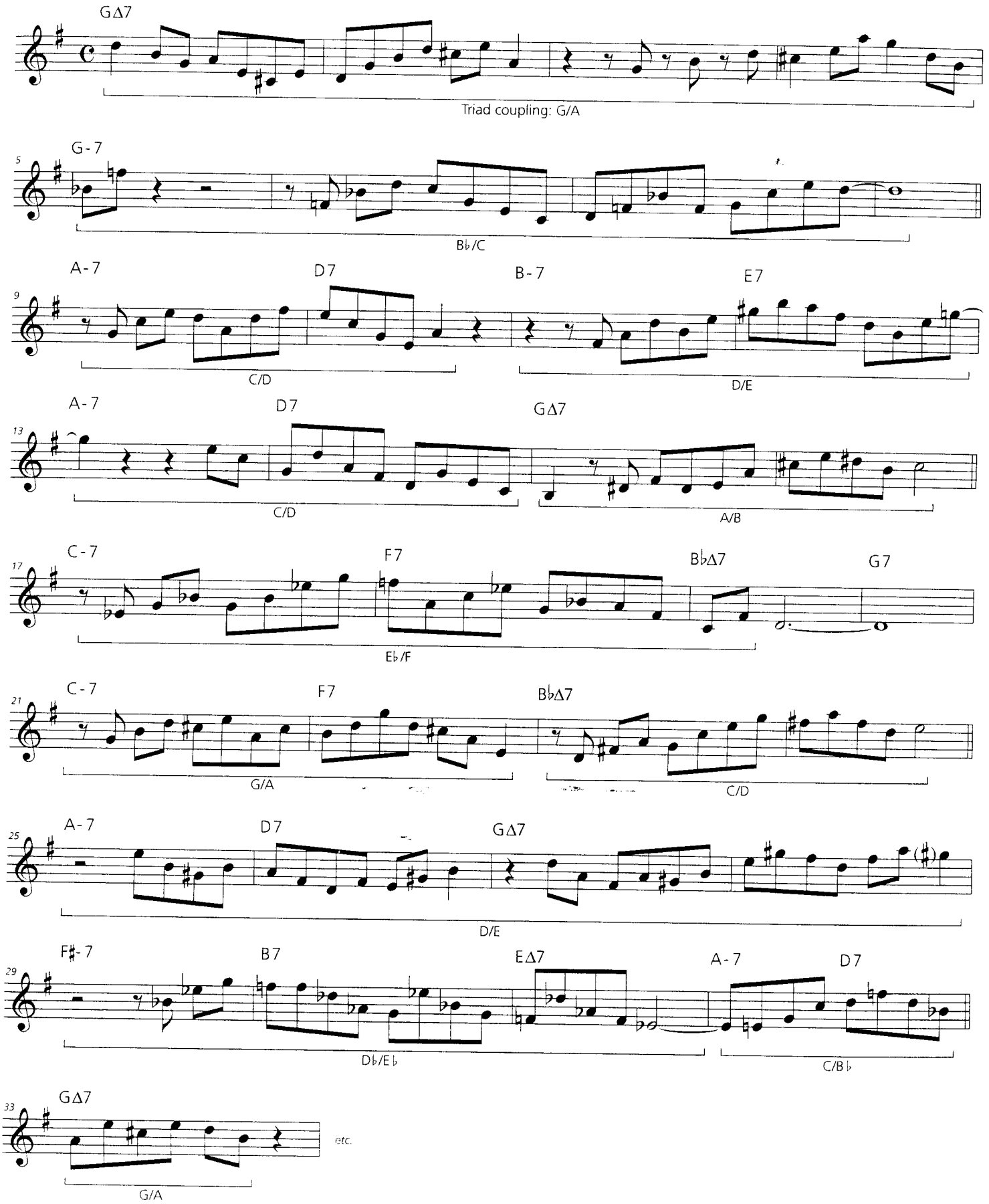
[Note: Triad couplings using 1 or 2 non-harmonic triads are the most difficult to apply musically, but can also create interesting and dramatic tonal effects. Use them sparingly on single chords of extended duration for the best results. Then try applying them to key-area progressions.]

Recommendations: Triad Couplings

1. Work with couplings using major triads only at first, then try minor and augmented triads.
2. Select one interval (e.g. a major 2nd) and practice all the major triad couplings connected by that interval alone before trying other intervals. Examples using a major 2nd interval are:

   C/D, D/E, E/F#, G♭/A♭, A♭/B♭, B♭/C, B/C♯, D♭/E♭, E♭/F, F/G, G/A, A/B.
3. Apply triad couplings to single chords of extended duration first (modal progressions), then try key-area progressions. Example V:6R: See Page 153.
4. Select couplings which create lower and/or upper structure triads only at first, then try incorporating non-harmonic triads. Example V:6R: See Page 153.
5. Try to use all the notes of each triad in the coupling in order to clearly establish the triad's tonality.
6. Try to complete at least one (and prefereably more) rotation of each triad coupling used within a single phrase. Example V:6R: See Page 153.

Example V:6R

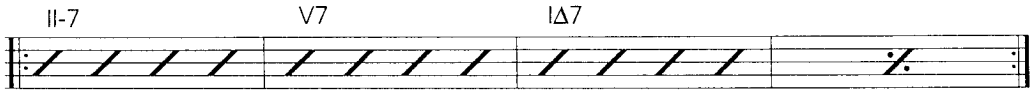

GΔ7
Triad coupling: G/A
G-7
B♭/C
A-7
D7
B-7
E7
C/D
D/E
A-7
D7
GΔ7
C/D
A/B
C-7
F7
B♭Δ7
G7
E♭/F
C-7
F7
B♭Δ7
G/A
C/D
A-7
D7
GΔ7
D/E
F♯-7
B7
EΔ7
A-7
D7
D♭/E♭
C/B♭
GΔ7
G/A
etc.

Triad Couplings, Exercises #1-3

1. Select a chord type (e.g. major 7 chord) and prepare a comping tape of this chord type in several (all) keys, a few minutes in each key, in tempo. Select one or more triad couplings to apply while soloing. Use the play/rest approach.

   [Note: Practice the same chord type for at least one week, applying triad couplings which use the same interval connection, e.g. a major 2nd.]

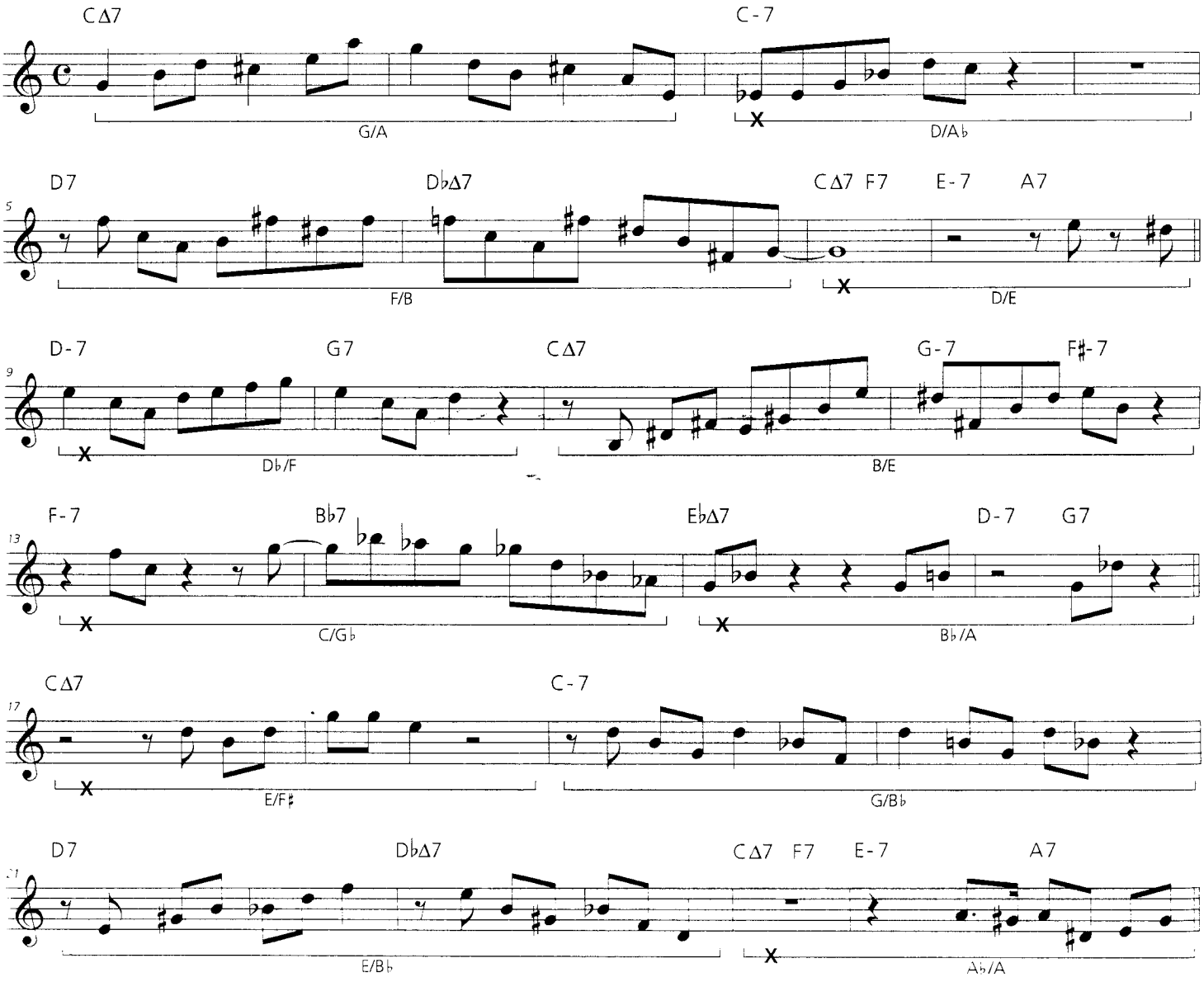
2. Repeat exercise #1 using a key-area chord progression, e.g.

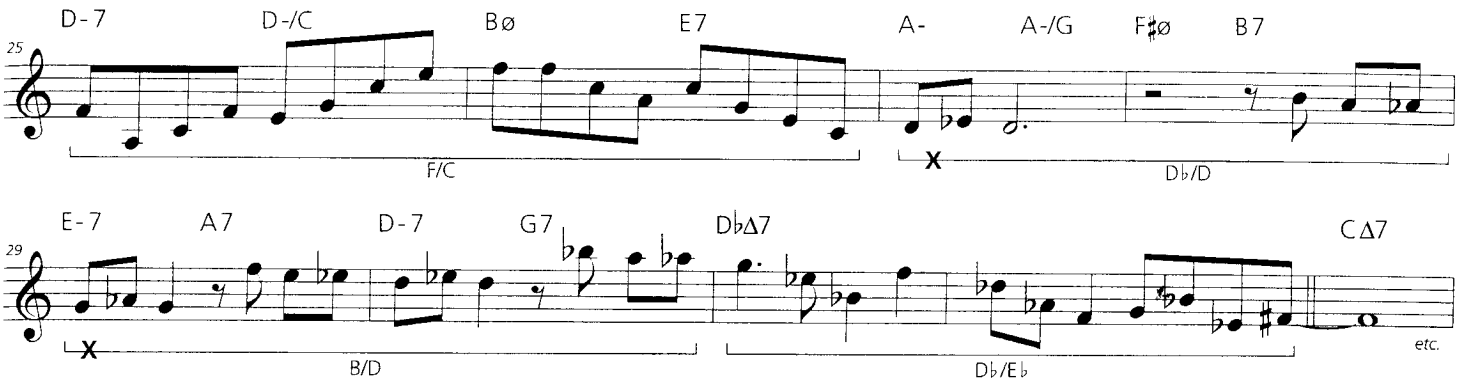


3. Select a tune progression containing chords of extended duration and key-area progressions. Assign triad couplings to extended chords and/or key-area progressions to apply at will while soloing. Use the play/rest approach and a comping tape.

   IMPORTANT: It isn't necessary to play every assigned triad coupling in each chorus of the solo. Vary the ones used. (X = triad coupling omitted)

Example V:7R





Example: Daily Practice Schedule - Triad Couplings

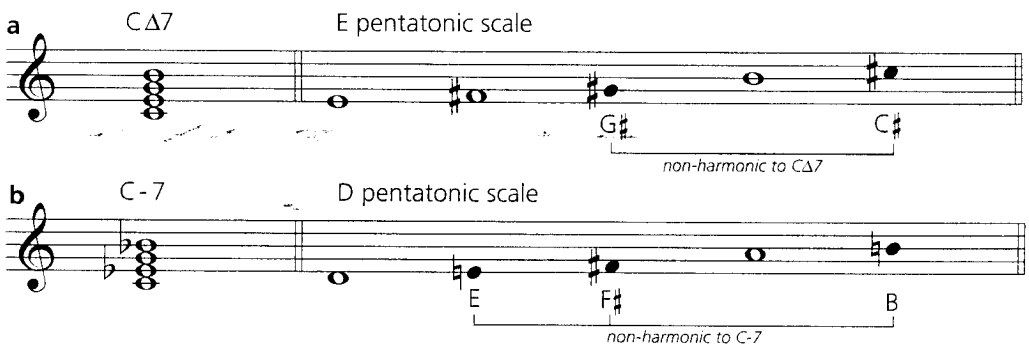
1. 30 minutes soloing in tempo on individual major triads and major triad couplings. (See example V:5 on page 151.)
2. 15 minutes on exercise #1.
3. 15 minutes on exercise #2.
4. 15 minutes on exercise #3.
5. 10 minutes on the spirit and mood of the music.

Non-Harmonic Pentatonic Scales (NHPT)

Pentatonic scales, like triads, can be used as tonal (harmonic) and non-tonal (non-harmonic) sources to derive melody for improvisation.

A non-harmonic pentatonic scale is a 5-note major pentatonic scale - i.e. 1, 2, 3, 5 ,6 of a major scale - where at least one note is non-harmonic to the chord or chord scale to which it is applied, e.g. E pentatonic scale on CΔ7. The notes of the E pentatonic scale which are non-harmonic to CΔ7 are G♯ and C♯.

Example V:8



Musical considerations regarding the application of non-harmonic pentatonics to chords are similar to those of non-harmonic triads, such as: (1) resolving from non-harmonic melody to harmonic melody *within* a phrase, (2) knowing where and when the non-harmonic activity is appropriate to use or easy to execute effectively, (3) regulating how often and how long non-harmonic activity is used in a solo, (4) using non-harmonic activity only when it is stylistically appropriate, (5) playing tonally (or "inside") on the non-harmonic pentatonic scale, (6) playing inside the intended chords first, then using non-harmonic or outside playing as a special effect.

Non-harmonic pentatonic scales may be applied to individual chords of extended duration and key-area chord patterns such as: || II-7 | V7 || or || IΔ7 VI-7 | II-7 V7 || etc., and even some chord combinations resulting in a modulation or change of key area. Selection of a non-harmonic pentatonic scale for a chord pattern is based on the key-area outlined by the pattern. The selected non-harmonic pentatonic scale does not have to be non-harmonic to each chord in the chord pattern.

With non-harmonic pentatonic scales, all or a significant amount of scale notes should be used in the application in order to clearly define the non-harmonic relationship between the intended chord or key-area and the non-harmonic pentatonic scale.

[Note: Due to the large quantity of available non-harmonic pentatonic scales, it is appropriate to try them all on isolated chords first and then select one or two "favorites" per chord type to practice and apply.]

Chord Type	Chord Scale	Non-Harmonic Pentatonic Scales
1. Major 7/Major 6	Ionian Lydian	♭II, ♭III, III, ♭V, ♭VI, VI, VII
2. Dominant 7 sus 4	Mixolydian sus 4	♭II, II, ♭III, III, ♭V, ♭VI, VI, VII
3. Dominant 7	Mixolydian Lydian -7	♭II, ♭III, III, ♭V, ♭VI, VI, VII
	Altered	♭II, II, III, V, VI
	1/2, 1	I, ♭II, II, III, V, ♭VI, ♭VII, VII
	Whole Tone	all
	Mixolydian -9, -13	♭II, II, III, V, VI (same as altered)
4. Minor 6, Minor/Major7 Minor/Major 7	Melodic Minor (ascending) Harmonic Minor	I, ♭II, II, III, ♭V, V, VI, VII
5. Minor 7	Dorian Aeolian Phrygian	same as minor 6
6. Minor 7♭5	Locrian Locrian ♮9	II, III, IV, V, VI, ♭VII, VII
7. Diminished 7	1, 1/2	all
8. Augmented/Major 7	Lydian/Augmented (melodic min.) Ionian/Augmented (harm. min.)	♭III, III, ♭V, ♭VI, VII

Before practicing the following exercises on non-harmonic pentatonic scales, review the section on (harmonic) pentatonic scales in Section III, particularly the preparation exercises on page 111-112.

Non-Harmonic Pentatonic Scales, Exercises #1-5

Select a harmonic setting and tempo. Assign non-harmonic pentatonic scales to the original chord(s), writing them above the chords or key-areas to which they apply. (See example on Page 157.) Using the play/rest approach and a comping tape, improvise in the follow ways throughout the solo:

1. Begin each phrase using harmonic activity, continue the phrase using the selected non-harmonic pentatonic scale, end each phrase using harmonic activity. Rest. Repeat.

   See Example V:9, Page 157, bars 1-2, 7-8, 31-33.

2. Begin each phrase using harmonic activity, end each phrase using the selected non-harmonic pentatonic scale.

   See Example V:9, Page 157, bars 10-12, 14-16.

3. Begin each phrase using the selected non-harmonic pentatonic scale, end each phrase using harmonic activity.

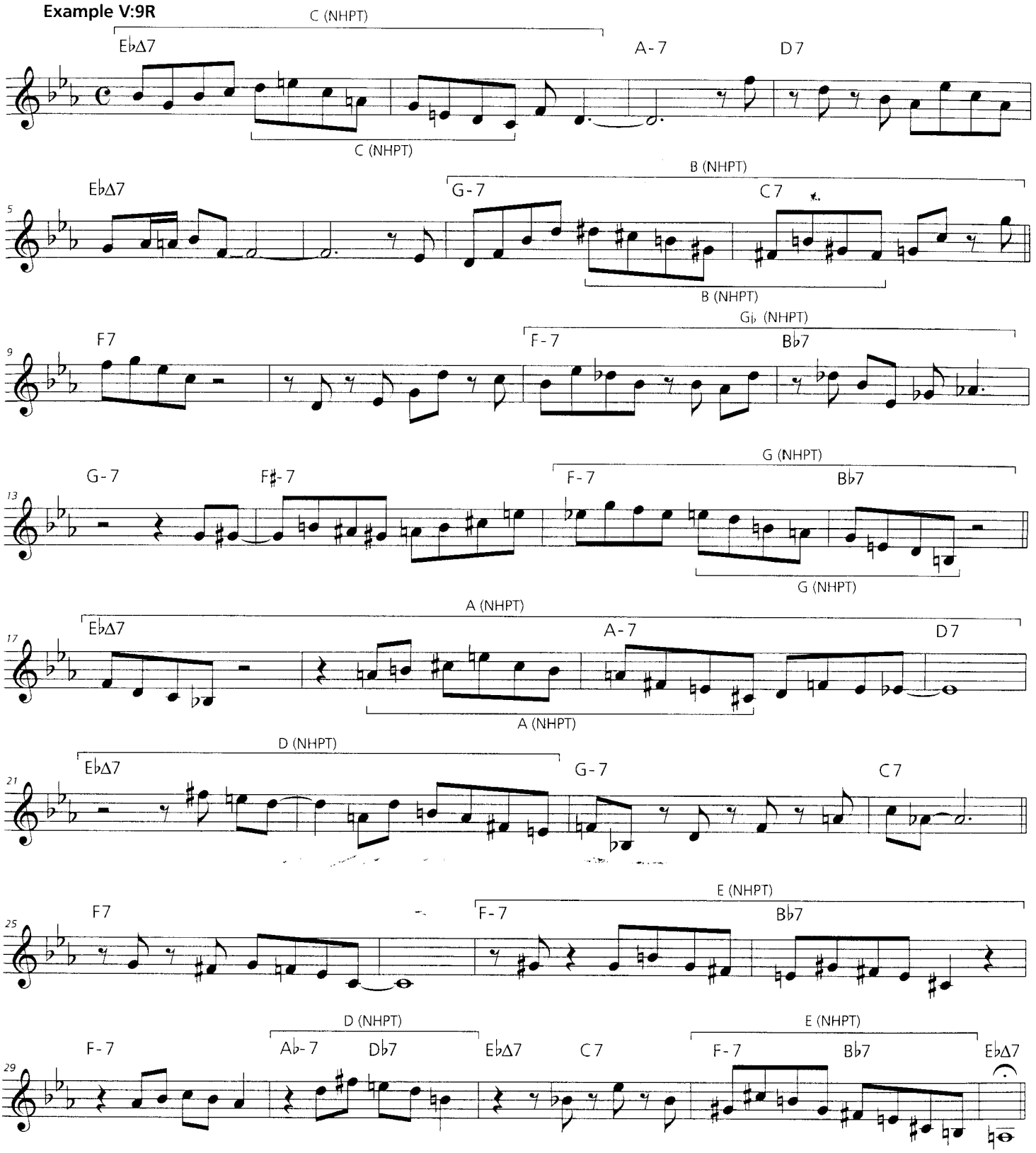
   See Example V:9, Page 157, bars 18-20, 21-24.

4. Rotate phrases: One phrase using harmonic activity, the next phrase using a non-harmonic pentatonic scale. Repeat throughout solo.

   See example of a phrase using non-harmonic activity only: Example V:9, Page 157, bars 25-30.

5. Use non-harmonic pentatonics at will, with or without resolving to harmonic activity.

Example V:9R



Example: Daily Practice Schedule - Non-Harmonic Pentatonic Scales

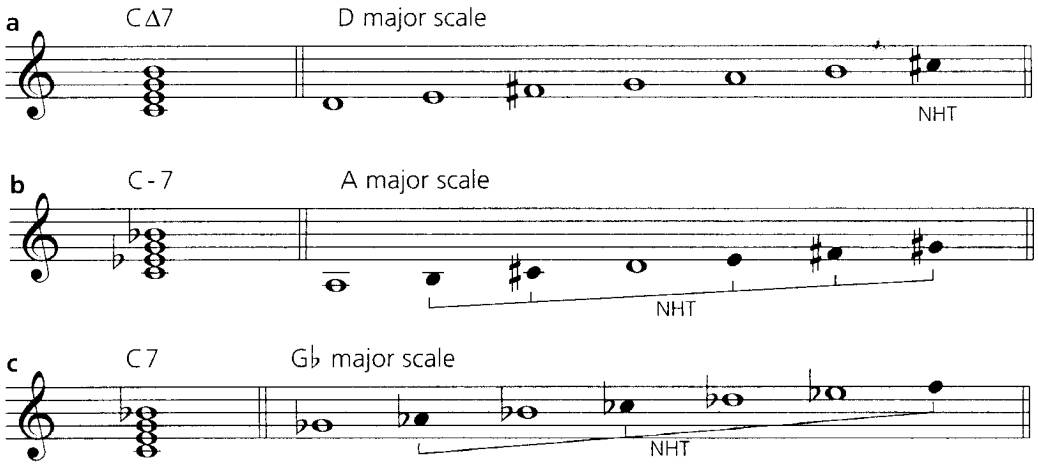
1. 15 minutes on exercise #1.
2. 15 minutes on exercise #2.
3. 15 minutes on exercise #3.
4. 15 minutes on exercise #4.
5. 20 minutes on exercise #5.
6. 10 minutes on the spirit and mood of the music.

Non-Harmonic Major Scales

Like triads and pentatonic scales, major scales can be used as harmonic or non-harmonic sources to derive melody in an improvised solo.

A non-harmonic major scale is one which contains one or more notes which are non-harmonic and unconventional to the chord or key-area to which it is applied. E.G., the D major scale on a CΔ7 chord.

Example V:10

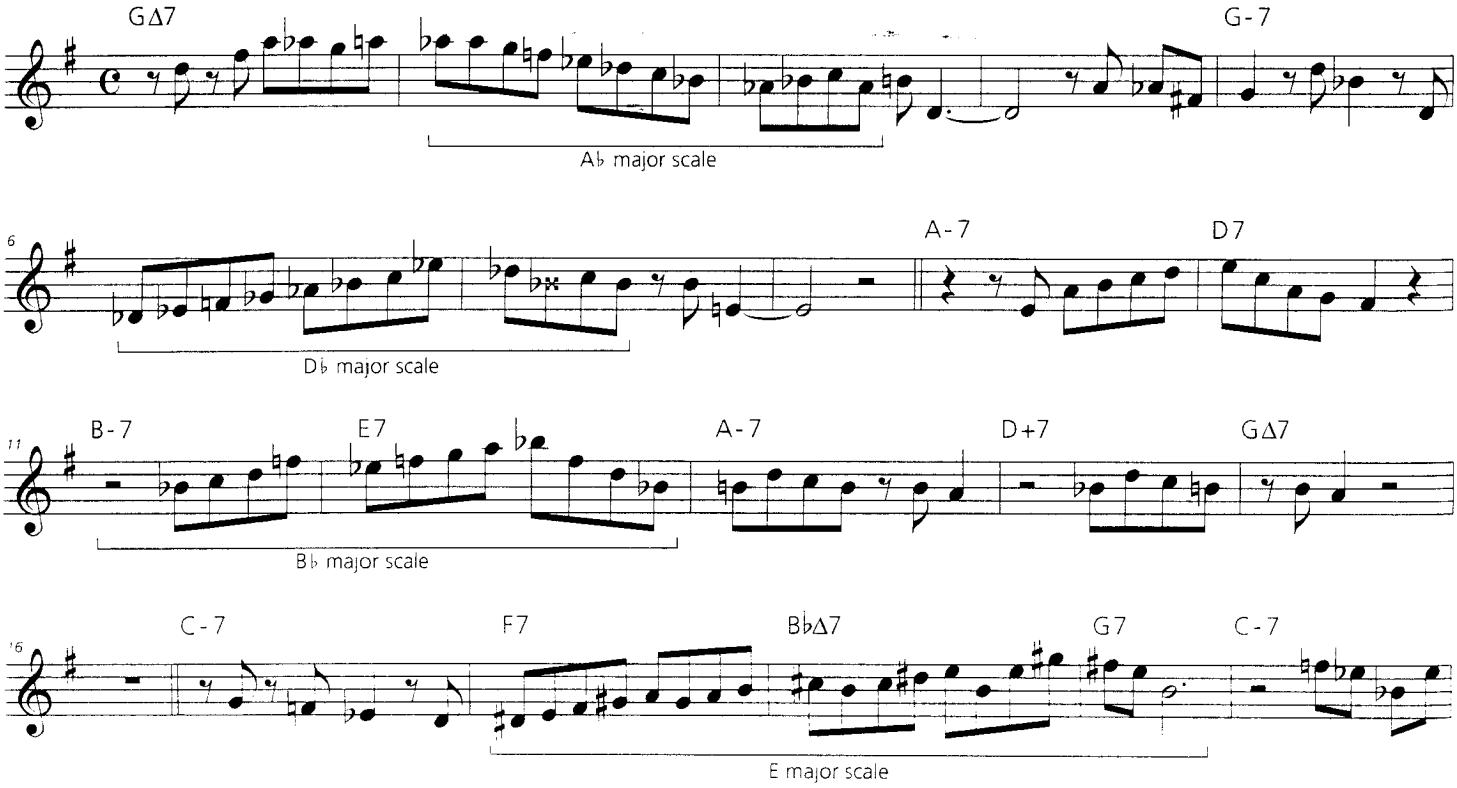


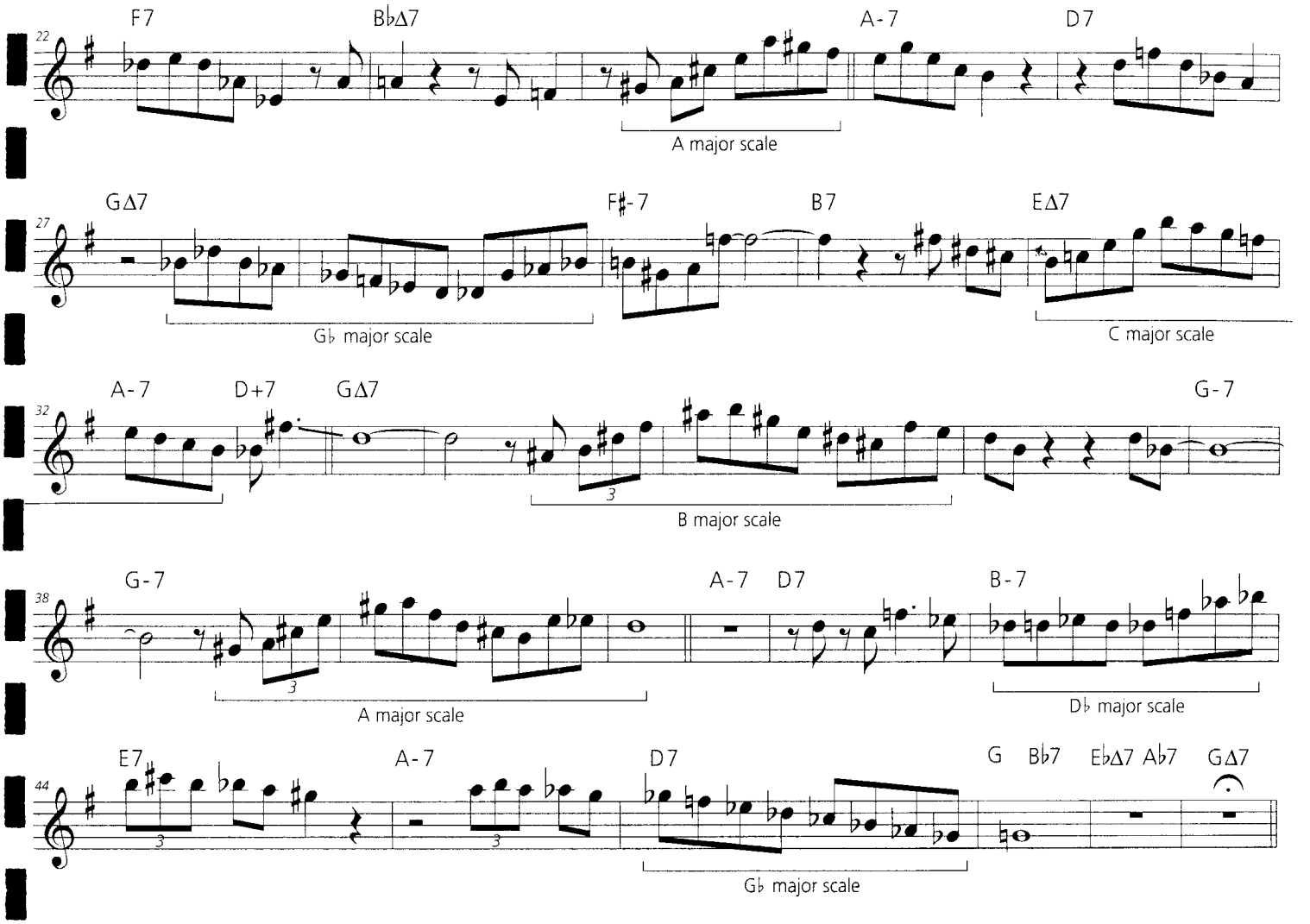
Major scales which contain one non-harmonic tone but also form a conventional mode or chord scale on the chord (or key-area) to which it is applied would be considered harmonic major scales, as opposed to non-harmonic. Examples would include: The C major scale on the CΔ7 chord, forming the C Ionian mode which contains one note (F) which is non-harmonic to the CΔ7 chord; the C major scale on the Bø chord, forming the B Locrian mode which contains one note (C) which is non-harmonic to the Bø chord.

Apply the considerations, exercises and practice schedule for non-harmonic triads and pentatonics with non-harmonic major scales.

[Note: Non-harmonic major scales are most effective on single chords or key-area progressions of extended duration.]

Example V:11R



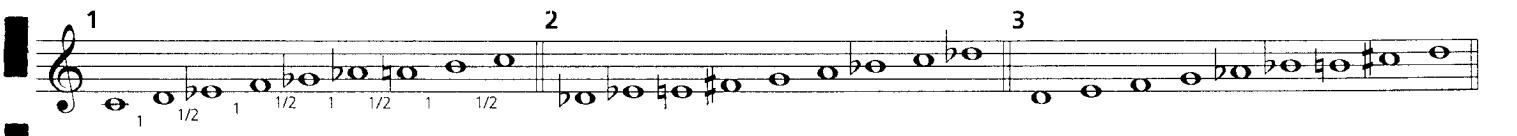


Non-Harmonic Symmetrical Scales

The three most common symmetrical scales used to derive melody on chords are:

1. Whole step, half step: Root, 1, 1/2, 1, 1/2, 1, 1/2, 1, 1/2. There are 3 scales possible.

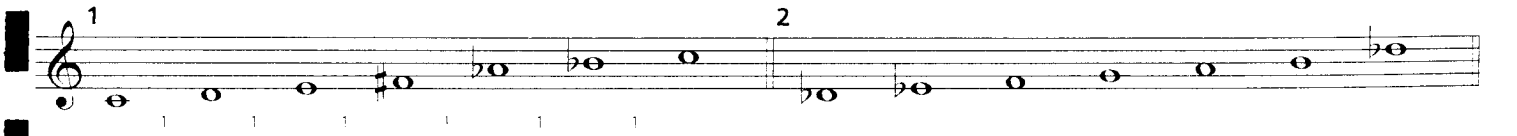
Example V:12



Each whole step/half step scale produces 4 major triads which can be used alone or in couplings: II, IV, ♭VI, VII.

2. Whole tone: Root, 1, 1, 1, 1, 1, 1. There are 2 scales possible.

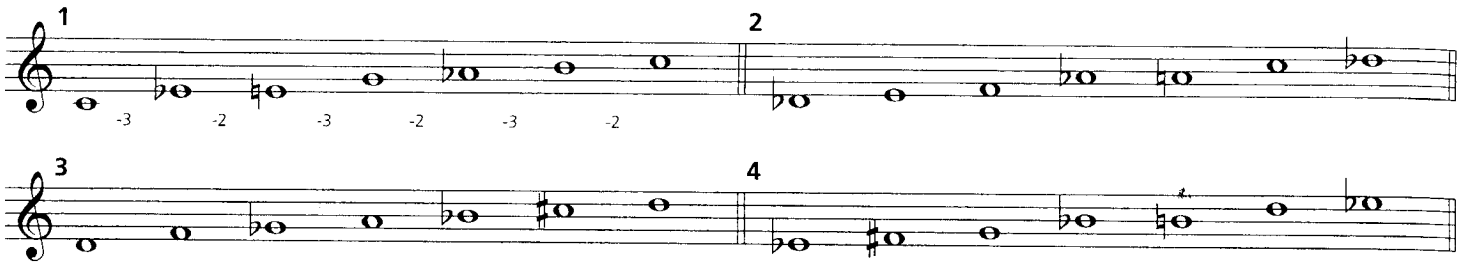
Example V:13



Each whole tone scale produces 2 augmented triads which can be used alone or in a coupling: I+, II+.

3. -3, -2: Root, -3, -2, -3, -2, -3, -2. There are 4 scales possible.

Example V:14



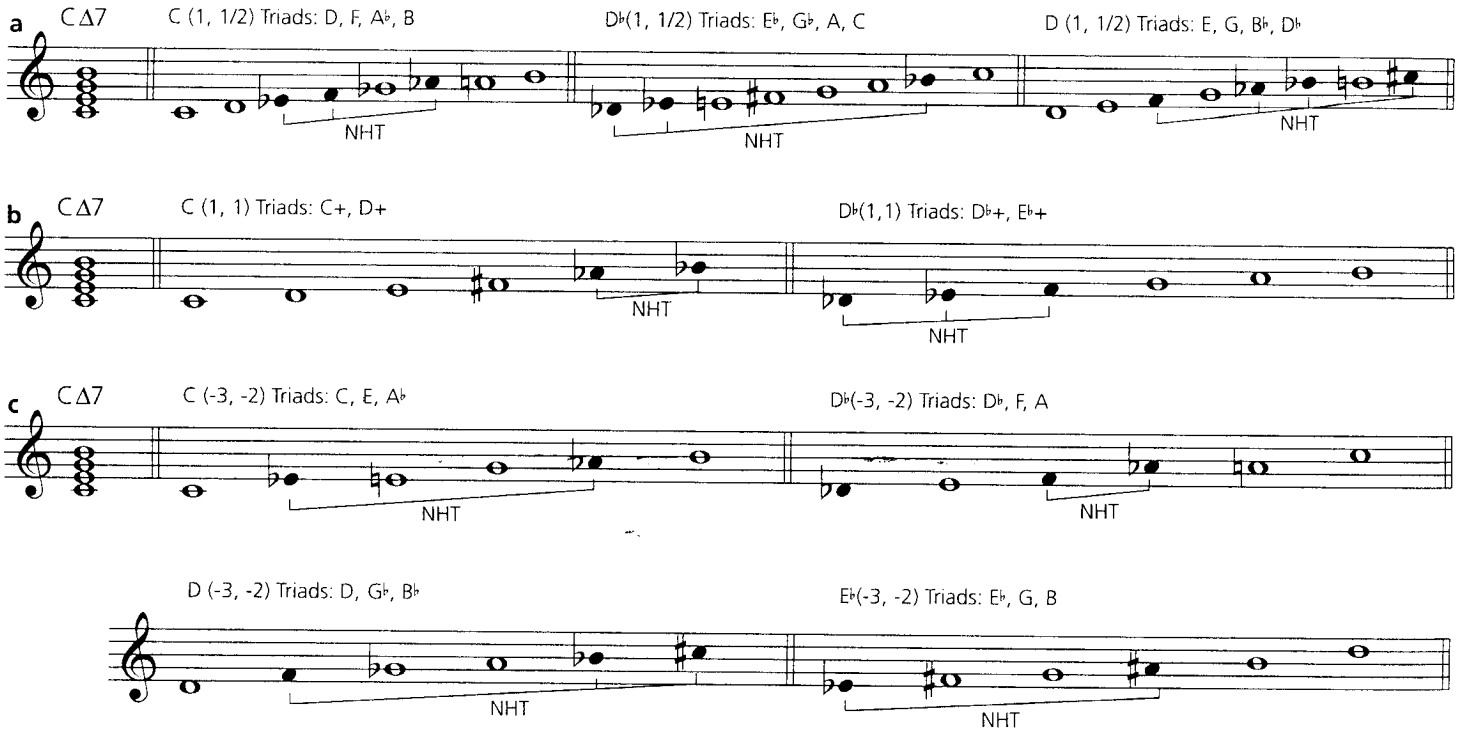
Each -3, -2 scale produces 3 major triads which can be used alone or in couplings: I, III, ♭VI.

Like major scales, symmetrical scales can be used as harmonic or non-harmonic sources of melody on chords or key-area progressions of extended duration.

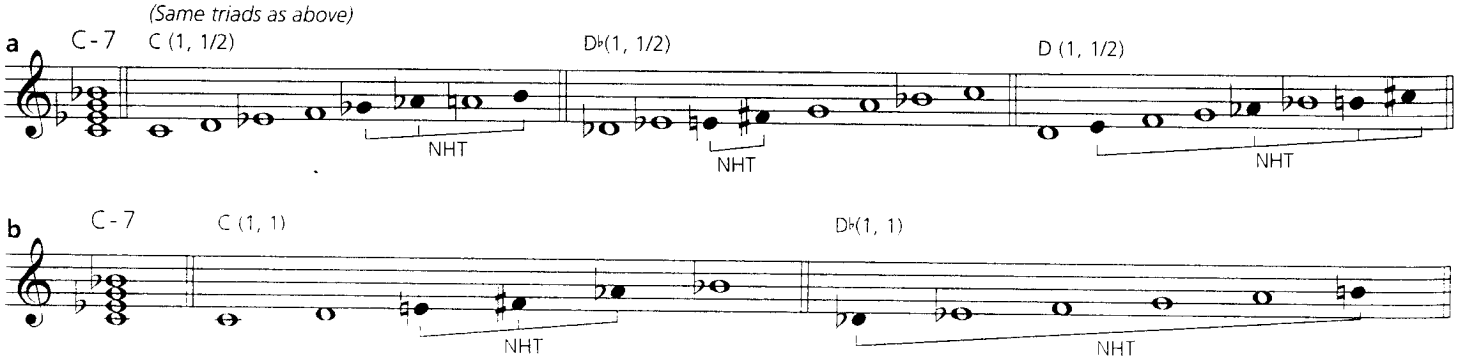
A non-harmonic symmetrical scale must contain at least one note (usually more) which is non-harmonic to the chord or key-area to which it is applied.

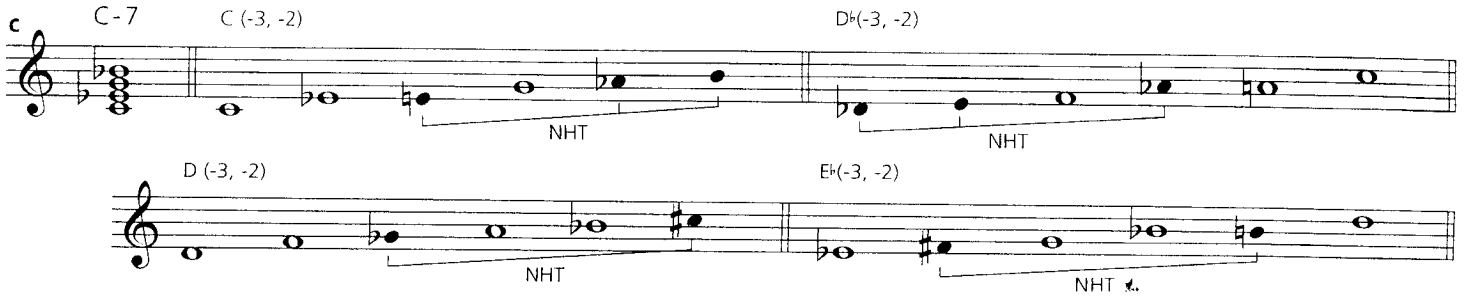
Examples include the following on Pages 160 and 161. (NHT means non-harmonic tone.)

Example V:15

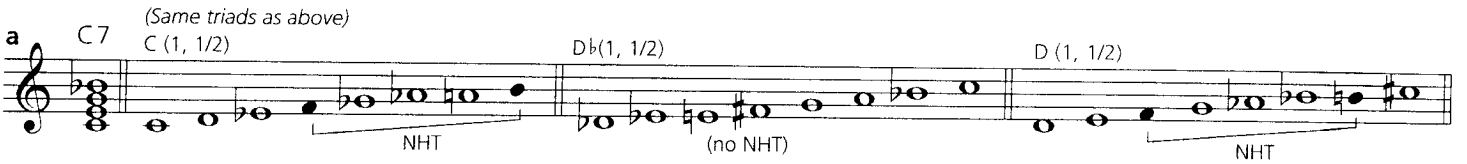


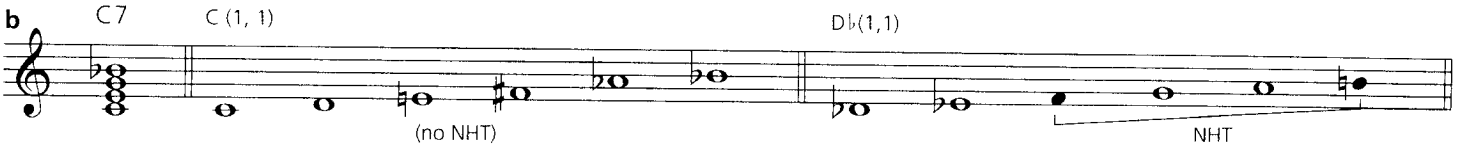
Example V:16

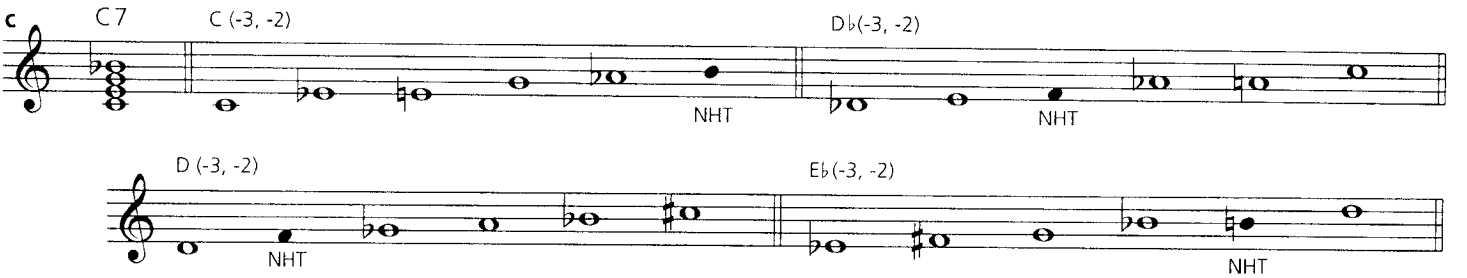




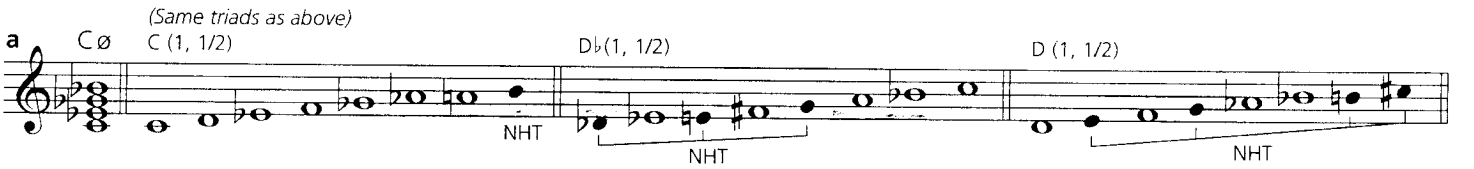
Example V:17

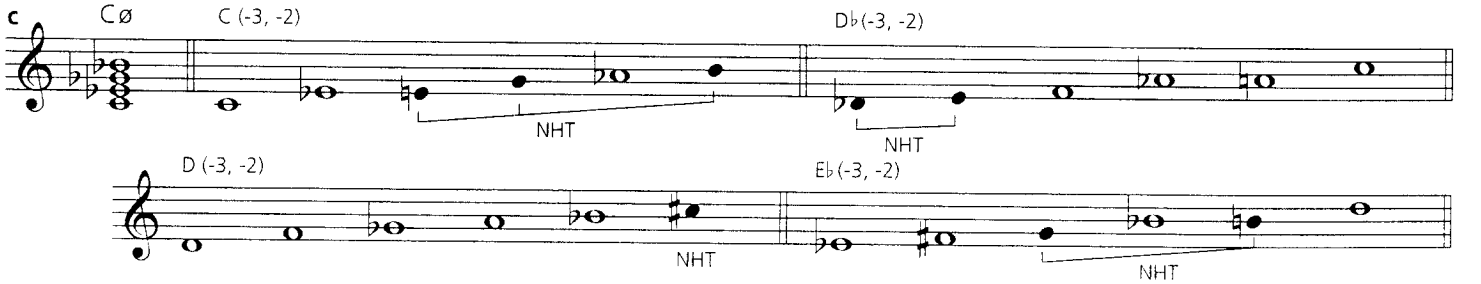






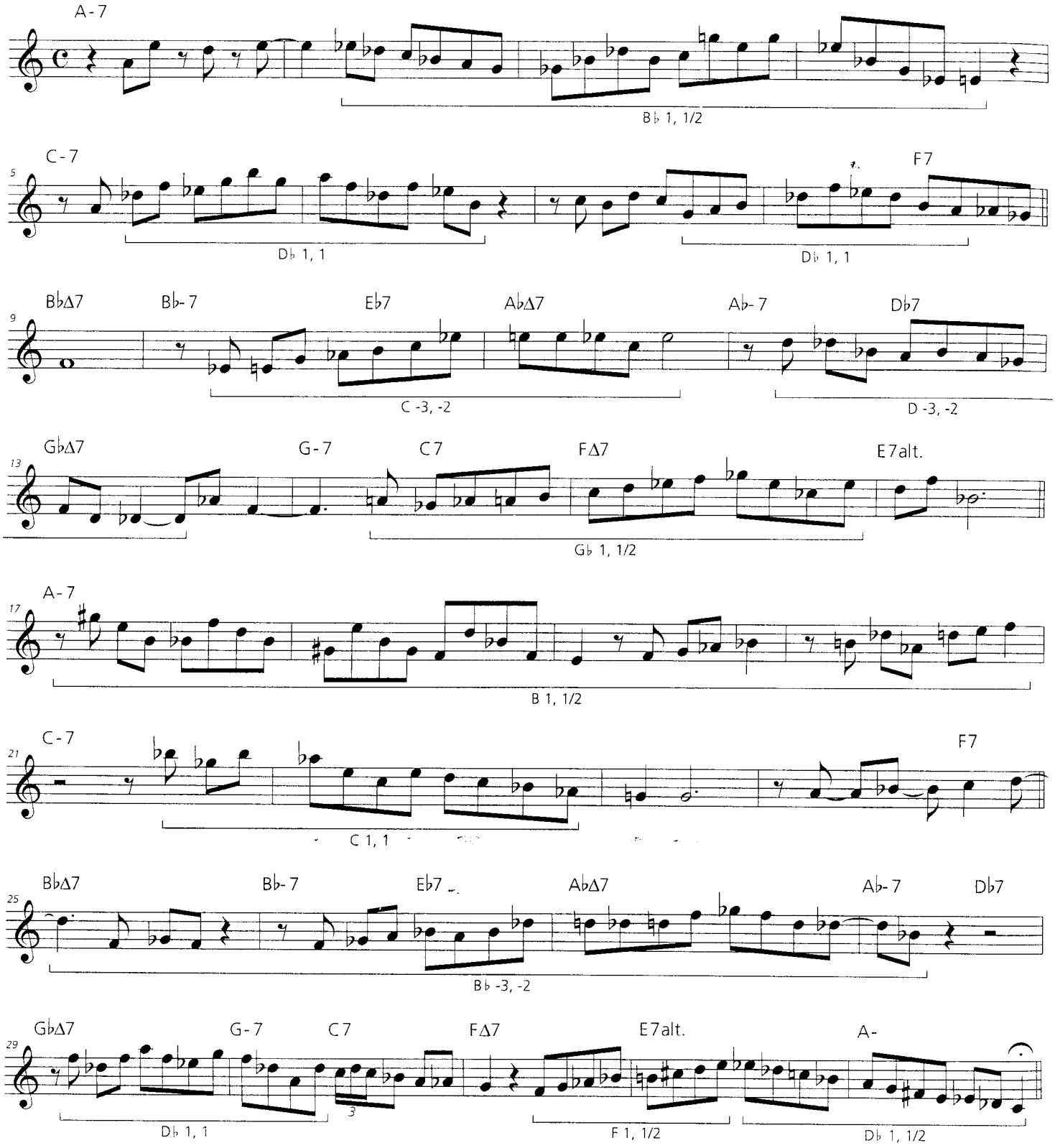
Example V:18





Apply the considerations, exercises and practice schedule for non-harmonic triads and pentatonics with non-harmonic symmetrical scales.

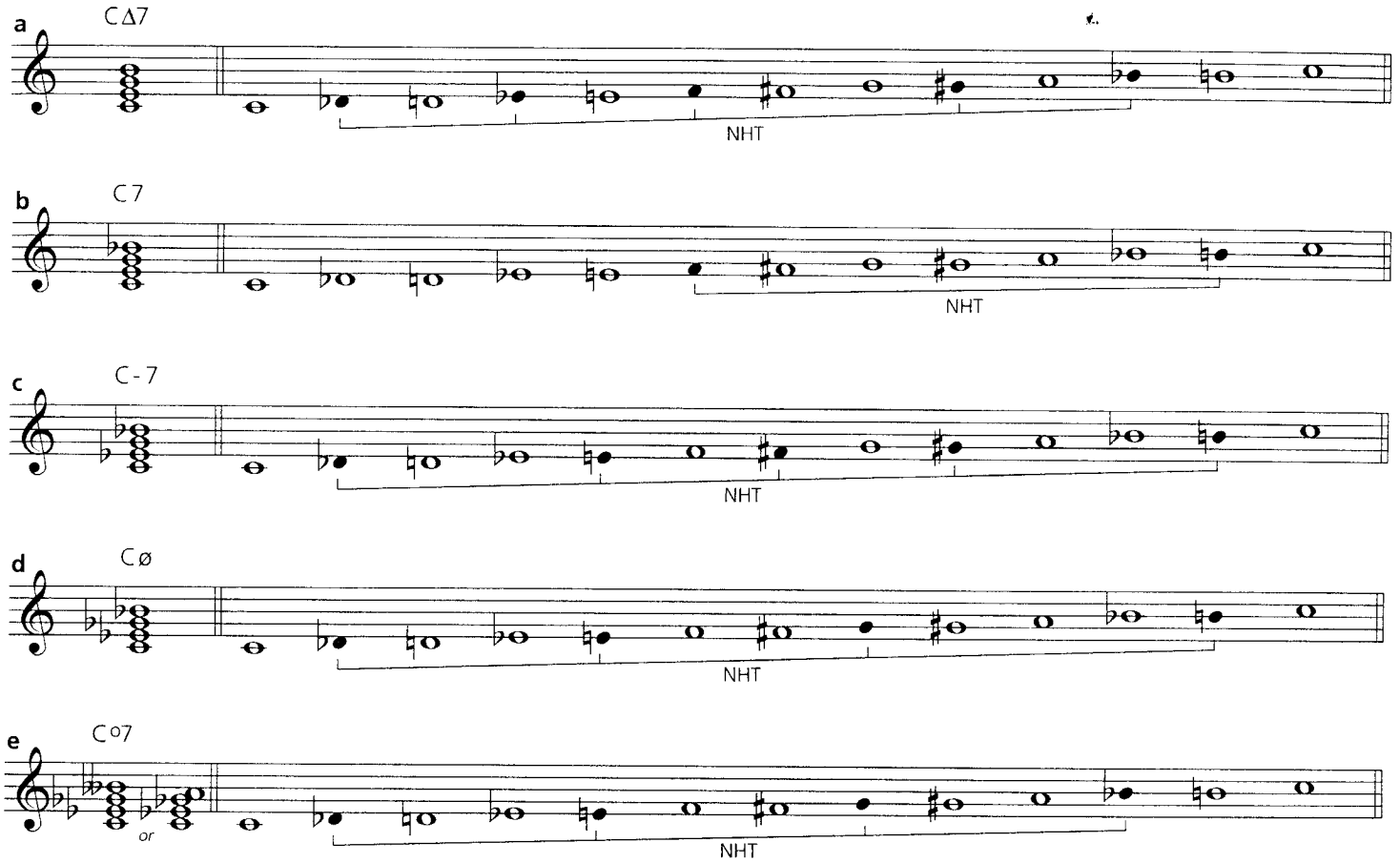
Example V:19R



Chromatic Scale

The chromatic scale is constructed by using consecutive 1/2 steps (or minor 2nd intervals) from the root to the octave. Since it therefore contains all 12 tones found within the octave, it can be used as a source to derive melody on *any* chord. Some notes of the scale will be harmonic and some will be non-harmonic depending on the particular chord to which it is applied.

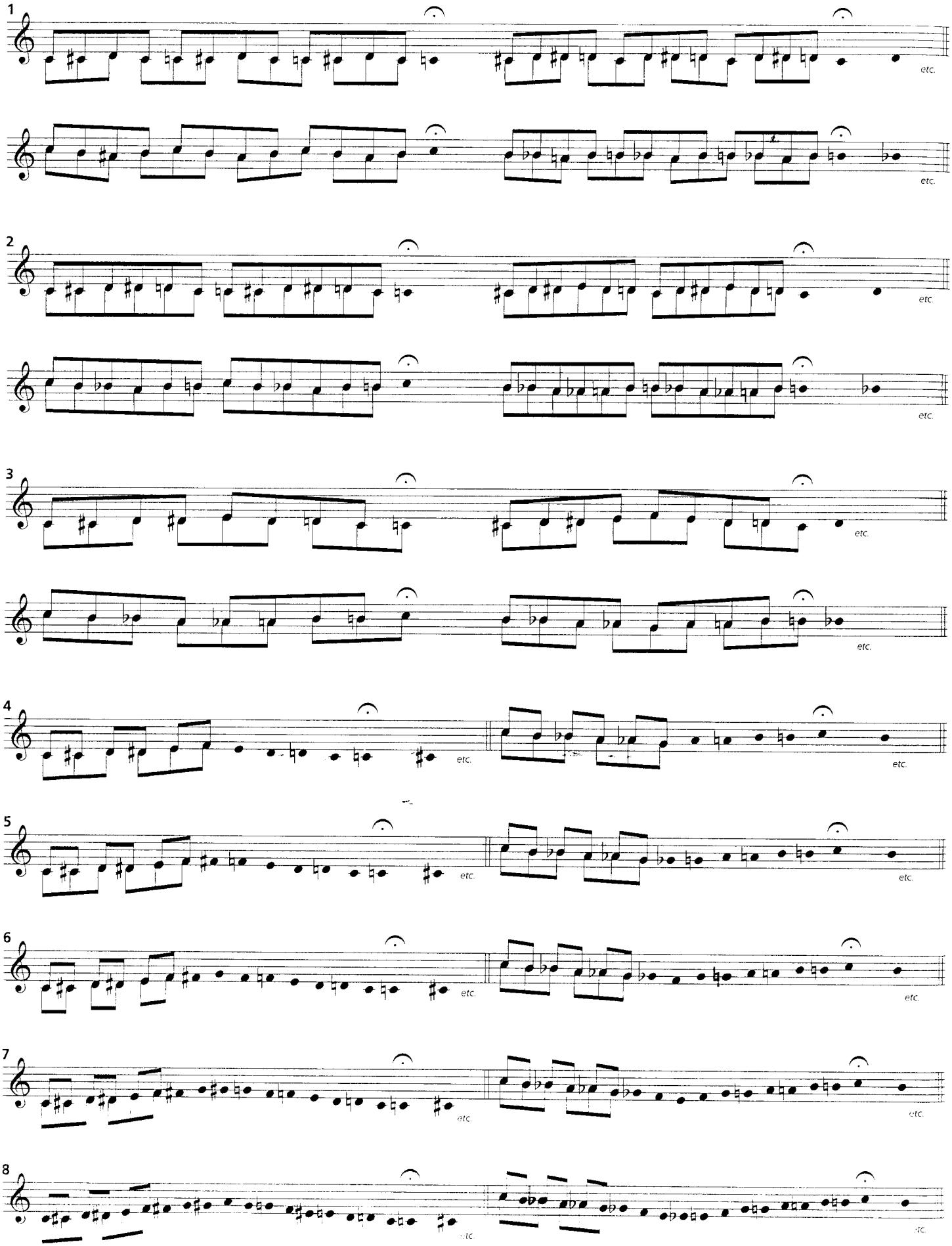
Example V:20

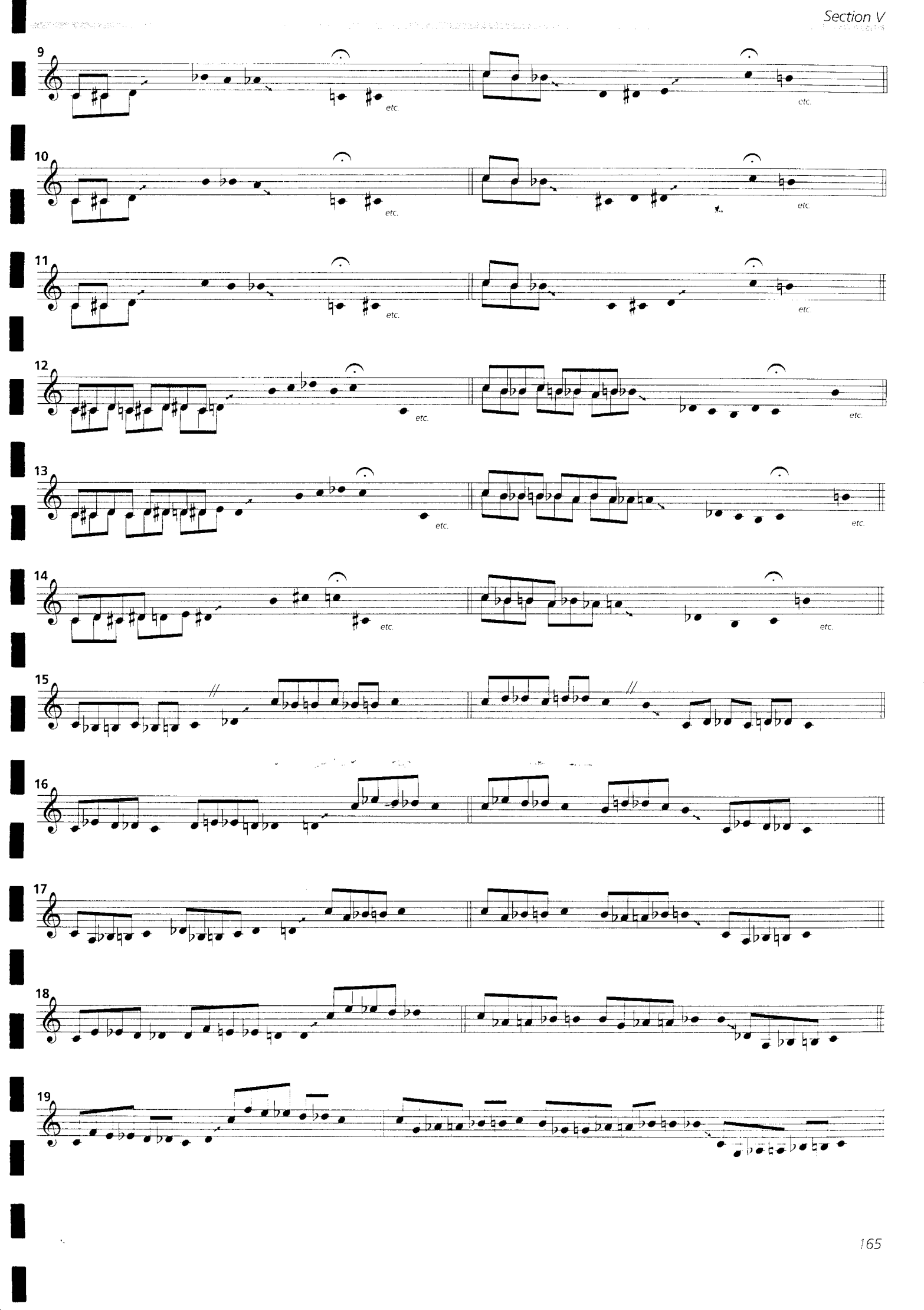


Improvising with [predominantly] chromatic movement in the melody is an extremely worthwhile approach to explore. Initially it may tend to sound mechanical or "exercise-ish", but with practice it will become more musical and very useful.

Use the following scale patterns as preparation exercises for soloing with [predominantly] chromatic motion in the melody. Each pattern can be played on each note of the chromatic scale, ascending or descending one or two octaves, using quarter notes, eighth notes, or triplets, at various tempos, with or without metronome accompaniment, etc.

Chromatic Scale Patterns, Exercises #1-30

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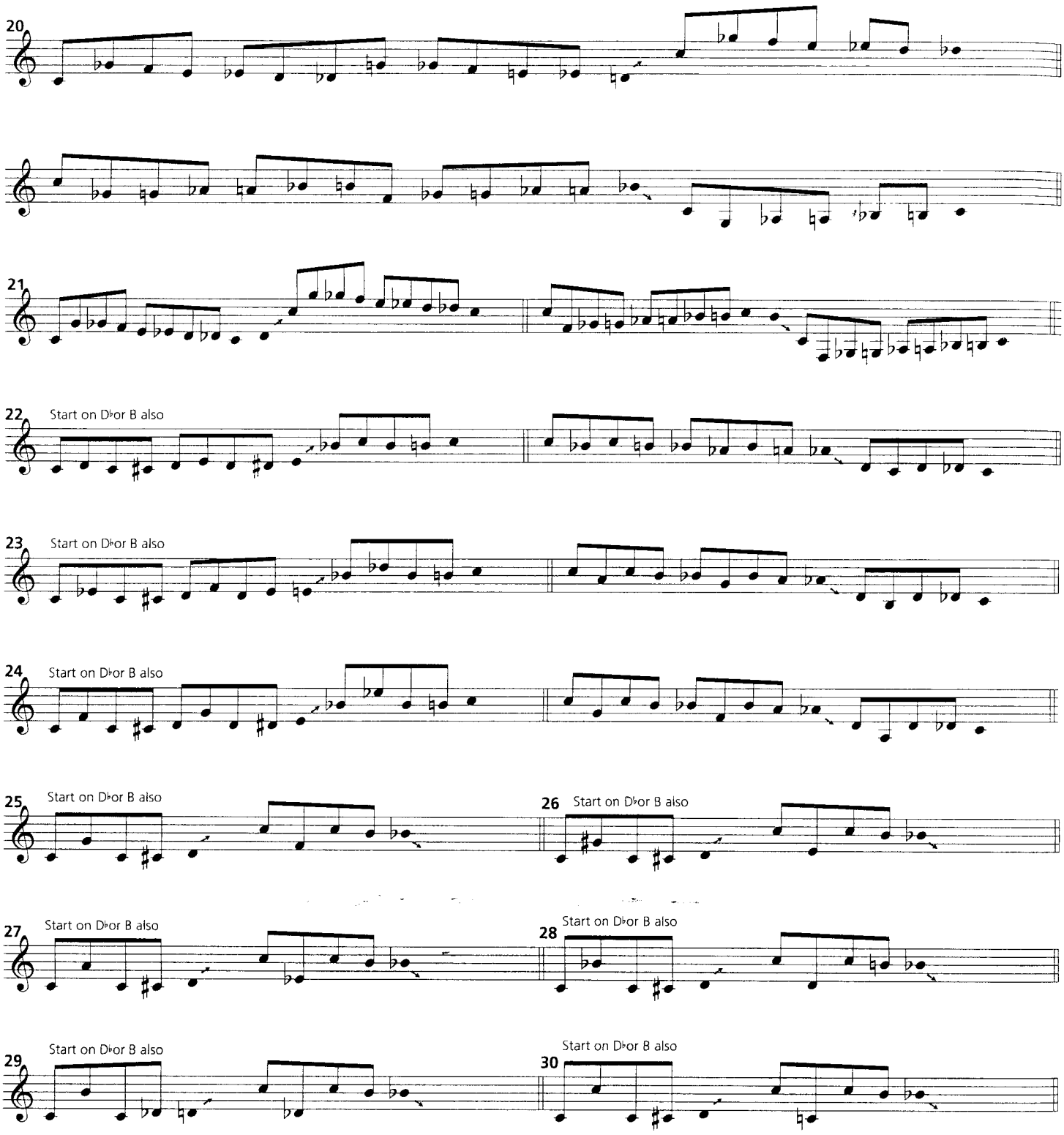


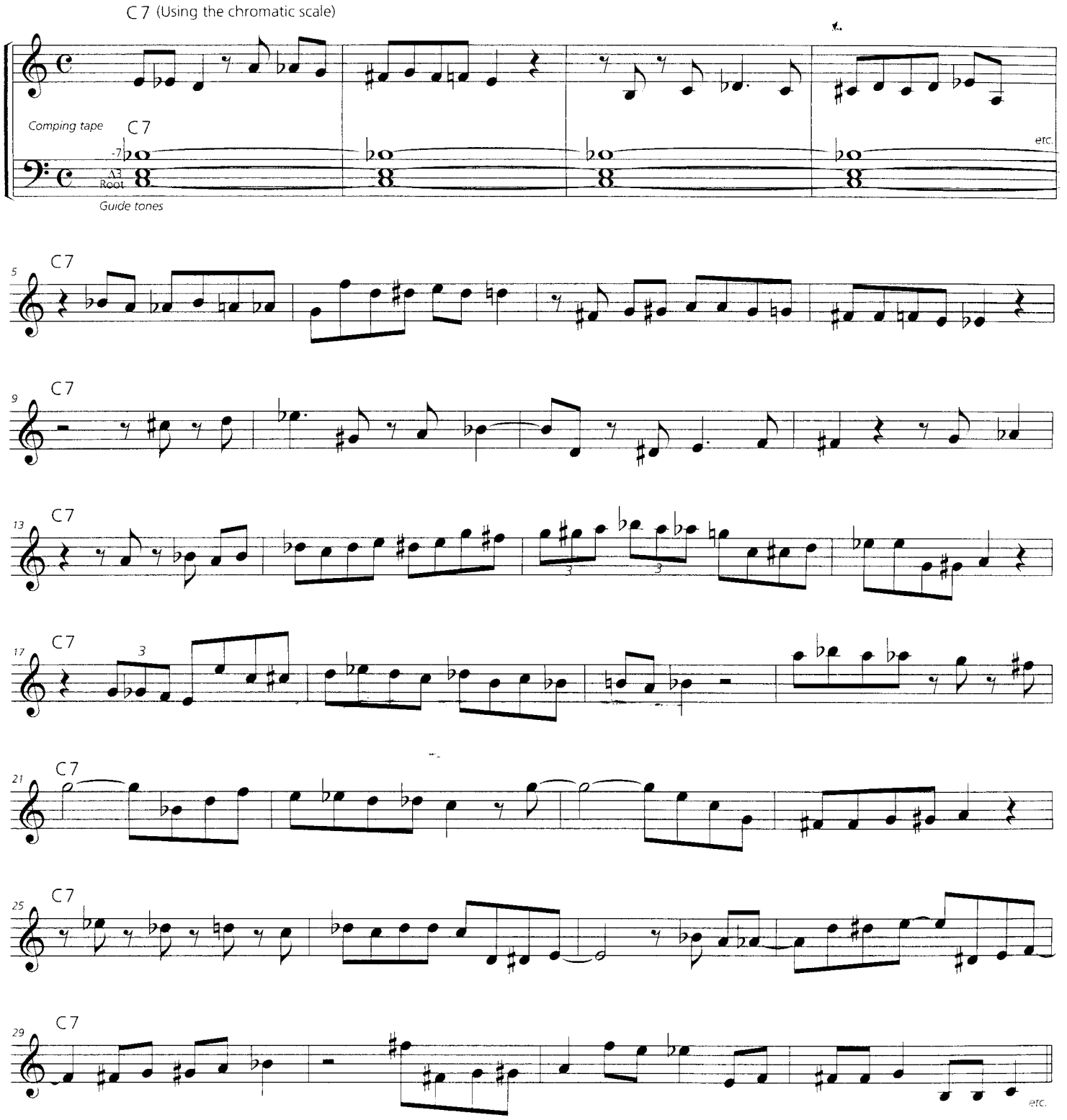
Soloing With Predominantly Chromatic Movement, Exercises #1-4

[Note: "Predominantly" chromatic movement means intervals other than a minor 2nd (1/2 step) may be used in the melody, but the focus should be on chromatics.]

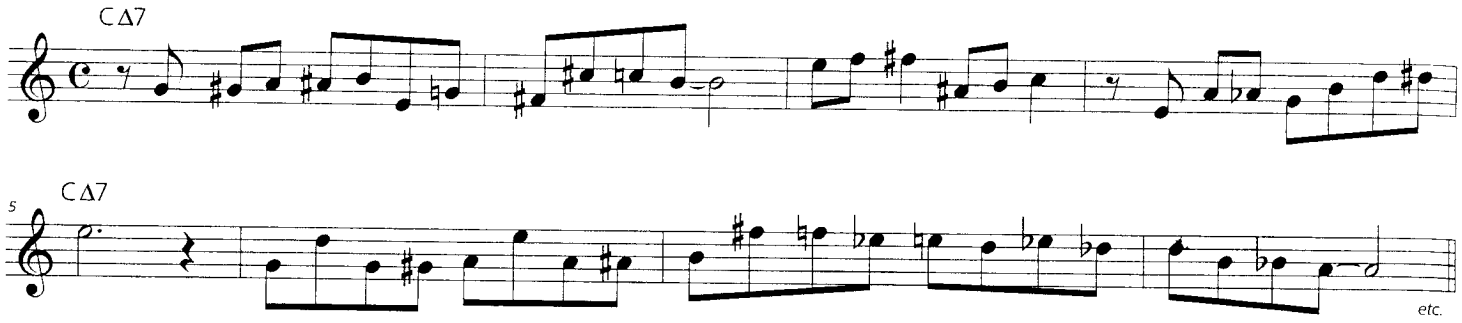
1. Using the play/rest approach and a comping tape, improvise in tempo on a single chord using the chromatic scale with the focus on 1/2 step movement in the melody. Resolve non-harmonic tones directly or indirectly by 1/2 step.

[Note: When applied to a dominant 7th chord consisting of the root plus the 3rd and 7th (i.e., the guide tones), the chromatic scale yields only 2 non-harmonic tones: the perfect 4th and the major 7th. Therefore begin by applying the above exercise to individual *dominant 7th chords* eventually covering all keys. After practicing *dominant 7th chords*, apply the exercise to individual major 7th chords, minor 7th chords, minor 7♭5 chords and diminished 7th chords.]

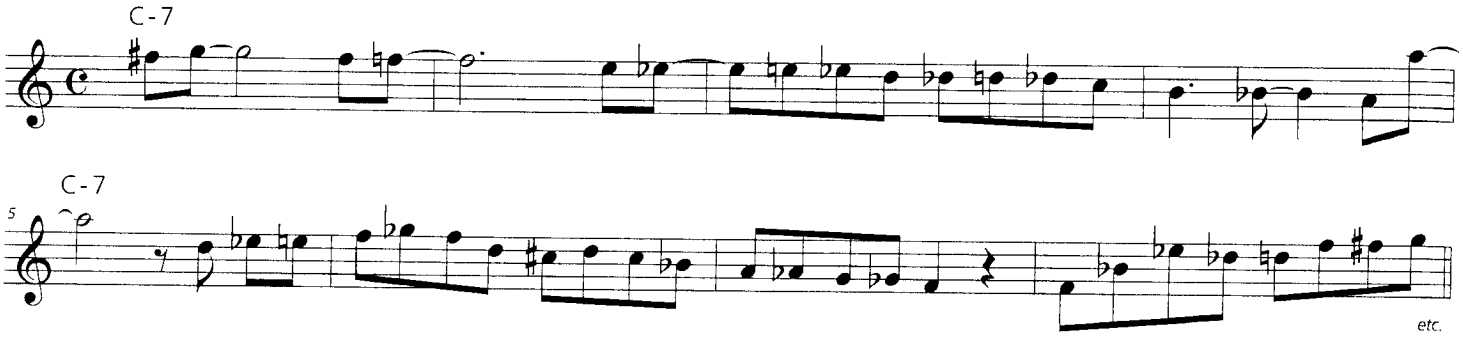
Example V:21R



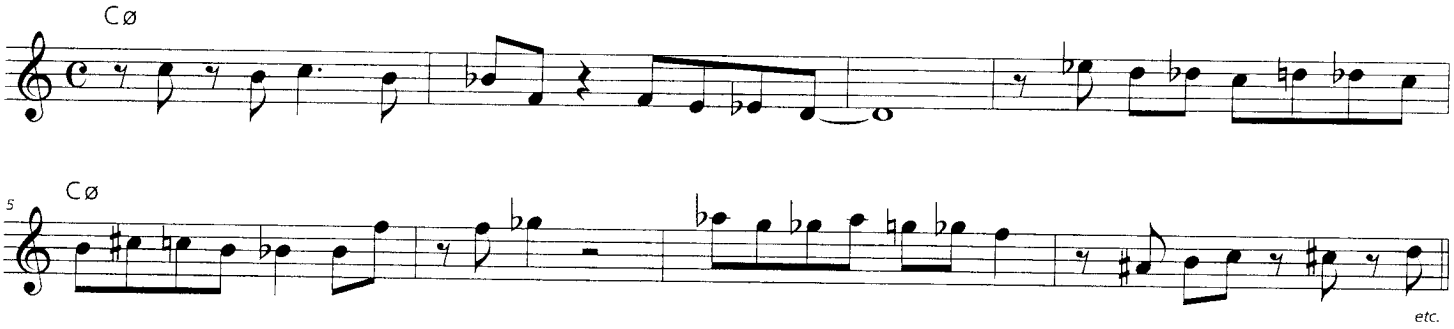
Example V:22R



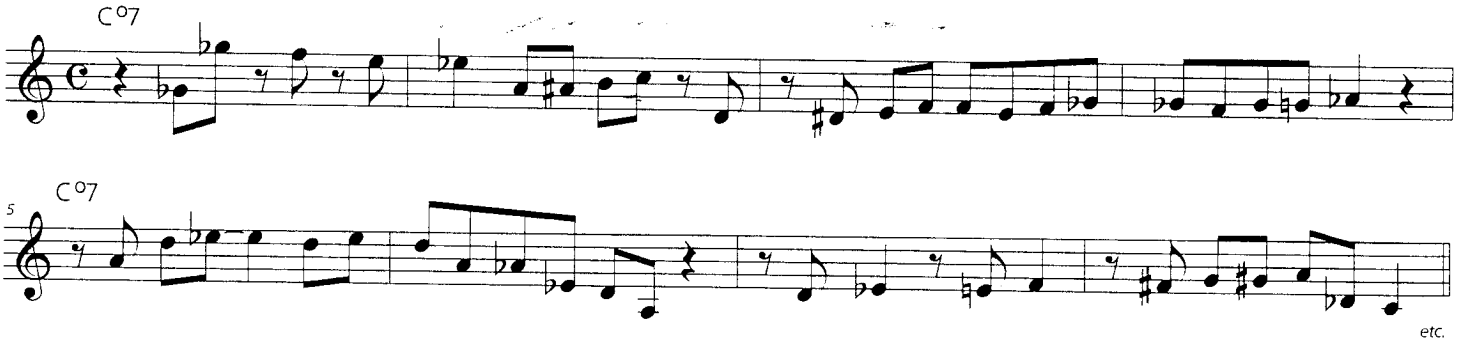
Example V:23R



Example V:24R

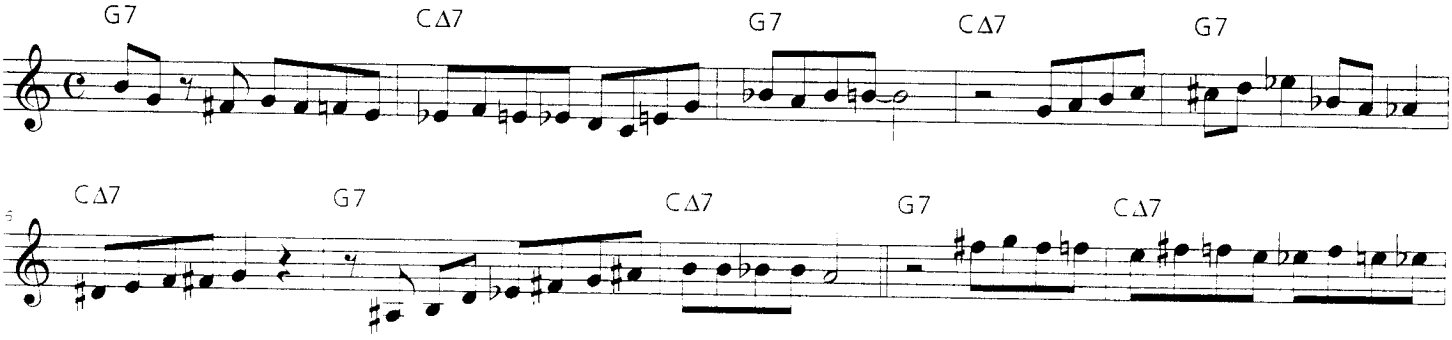


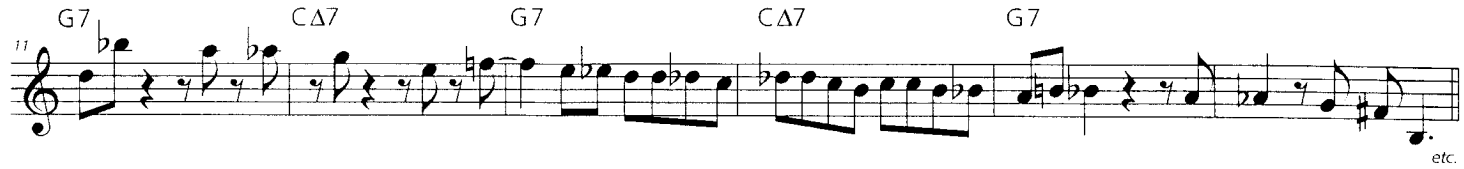
Example V:25R



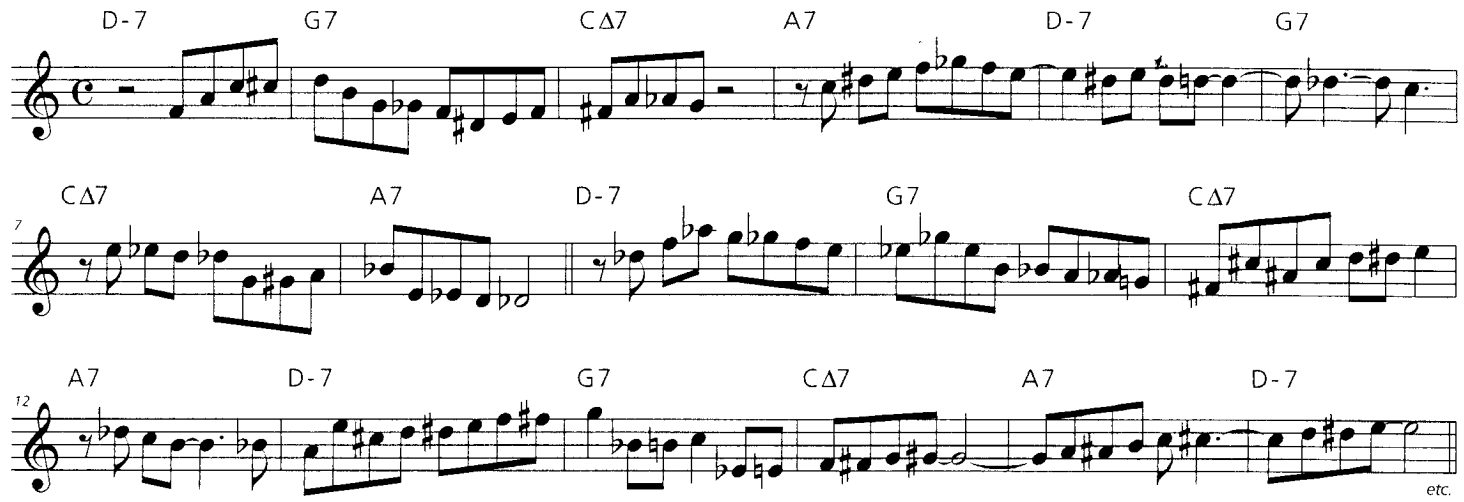
2. Apply exercise #1 to chord patterns, such as || V7 | IΔ7 || or || II-7 | V7 | IΔ7 | ⁄ ||.

Example V:26R



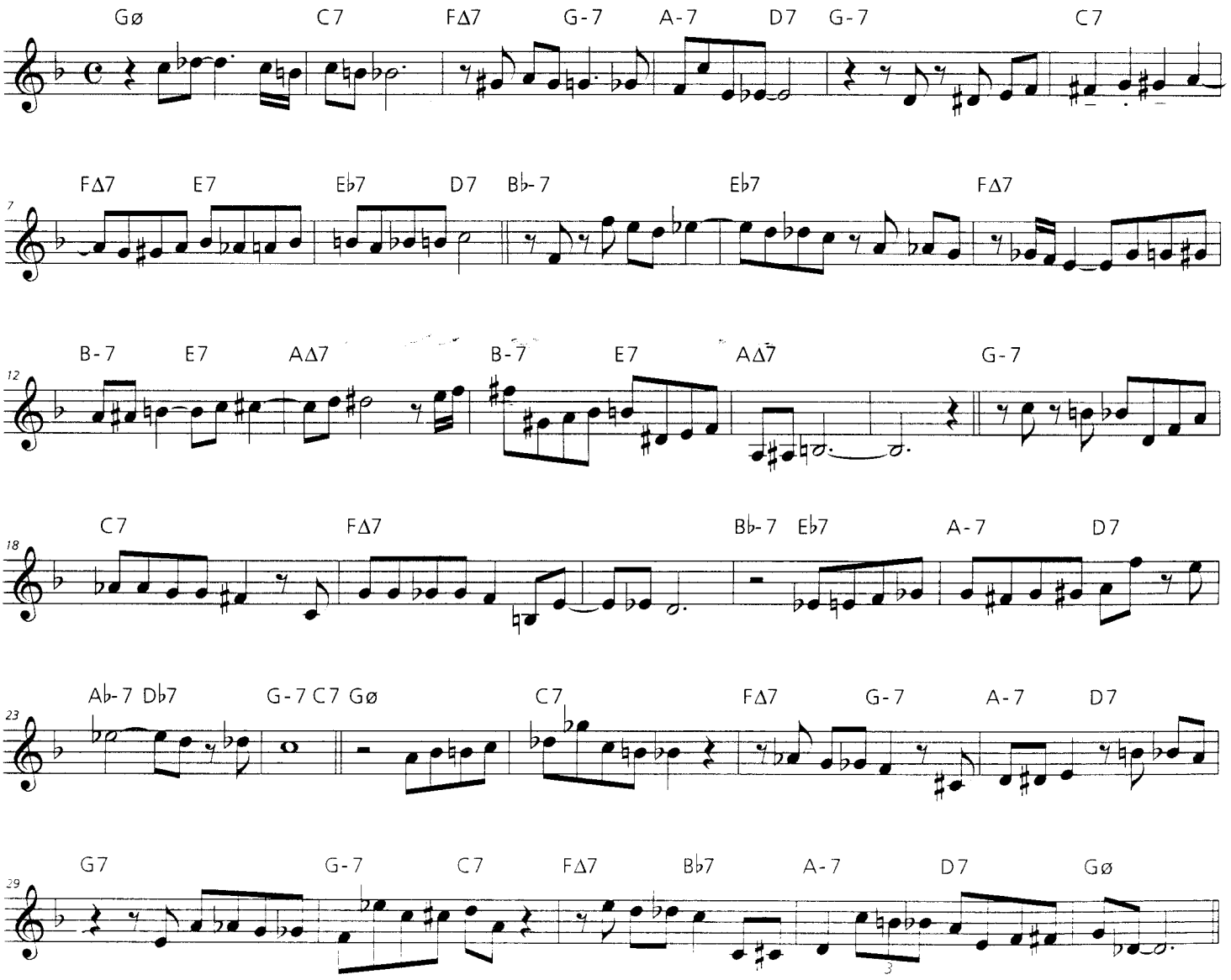


Example V:27R



3. Apply exercise #1 to a tune progression.

Example V:28R



4. Apply exercise #1 to a "free" harmonic setting, i.e. without chords.

Example: Daily Practice Schedule - Chromatic Scale

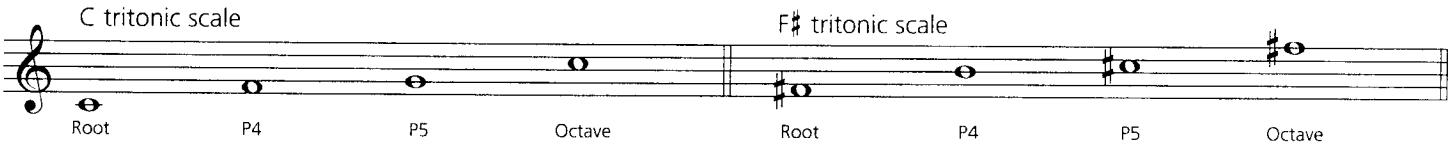
1. 30 minutes on selected chromatic scale patterns (select from exercises #1-30).
2. 30 minutes on soloing with chromatic scales, exercise #1.
3. 20 minutes on soloing with chromatic scales, exercise #2.
4. 20 minutes on soloing with chromatic scales, exercise #3.
5. 10 minutes on soloing with chromatic scales, exercise #4.
6. 10 minutes on the spirit and mood of the music.

Tritonic Scales (TT)

A tritonic scale is comprised of 3 different notes arranged in ascending order from a root tone to its octave. Exceptions include conventional triad forms, triad inversions, and structures comprised of intervals which would render the scale impractical for use in performance, e.g. C, D♭, B, C.

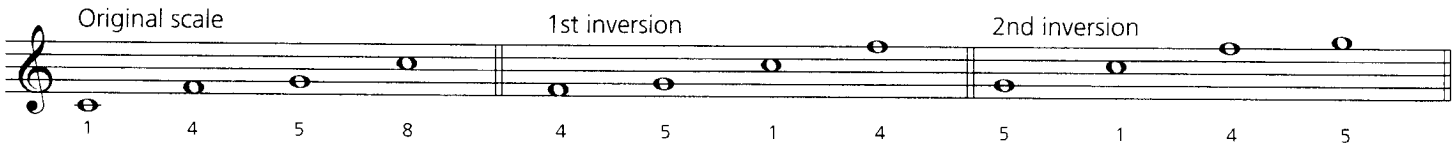
The tritonic scale formula used throughout this discussion will be: Root, perfect 4th, perfect 5th, octave.

Examples V:29



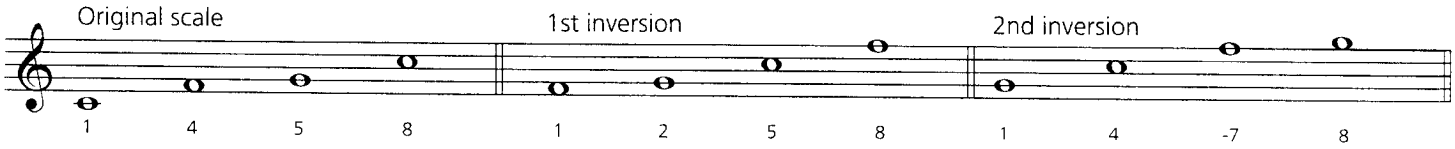
The tritonic scale can be "inverted" by starting the scale on the 4th or 5th degree.

Example V:30



When the 1st note of each inversion is thought of as a root tone, the interval analysis of the inverted scale becomes as follows:

Example V:31



The tritonic scale can also be likened to a major triad sus 4 chord, i.e. a major triad where the perfect 4th of the chord replaces the major 3rd. Melodies derived from this scale will sound similar to triad melodies because of the extremely angular melodic curves created. Like triads, tritonic scales can be applied to chords and used as harmonic or non-harmonic sources to derive melody while soloing.

Following is a chart which lists the available [harmonic] tritonic scales per chord type. I suggest that you try them all first using a keyboard or comping tape, then select one or two preferred ones per chord type to practice and apply when soloing.

Chord Type	Chord Scale	Available Tritonic Scales
1. Major 7/Major 6	Ionian	II, III, V, VI
	Lydian	II, III, V, VI, VII
2. Dominant 7 sus 4	Mixolydian sus 4	I, II, IV, V, VI
3. Dominant 7	Mixolydian	II, V, VI,
	Lydian -7	II, V, VI
	Altered	♭II, ♭III, ♭VI
	1/2, 1	None
	Whole Tone	None
4. Minor 6, Minor/Major7	Melodic Minor (ascending)	I, II, V
Minor/Major 7	Harmonic Minor	I, V
5. Minor 7	Dorian	I, II, IV, V, ♭VII
	Phrygian	I, ♭III, IV, ♭VII
	Aeolian	I, IV, V, ♭VII
6. Minor 7♭5	Locrian	♭III, IV, ♭VII
7. Diminished 7	1, 1/2	None
8. Augmented/Major 7	Lydian/Augmented (melodic min.)	VII

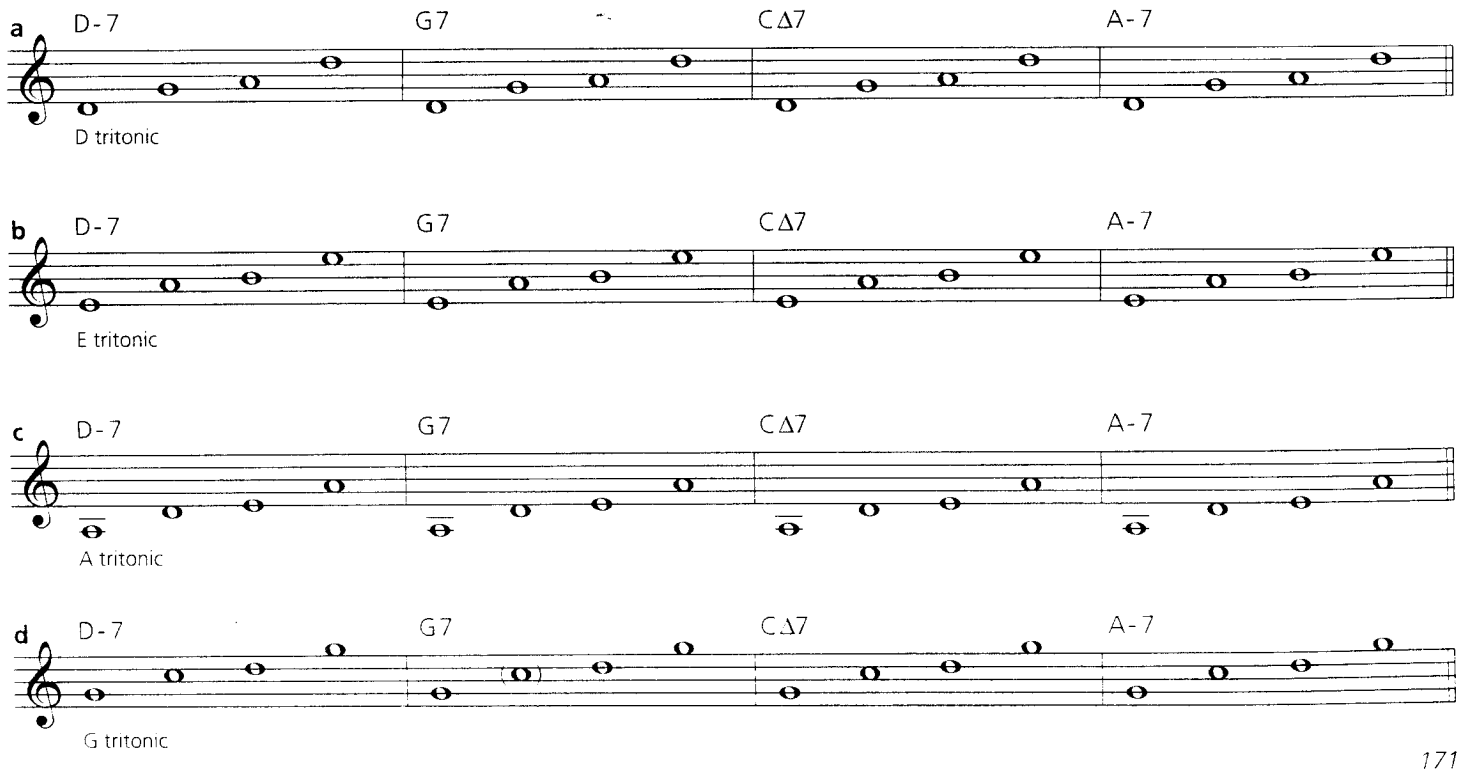
It is important to first learn the tritonic scale in all (or at least several) keys on your instrument before applying it to chords and key-areas in a soloing context. Review the lesson on Lower Structure Triads in Section II (particularly pages 71-72) and practice the suggested preparation exercises using tritonic scales instead of triads.

With key-area chord progressions, the same tritonic scale will often work (i.e. be harmonic) on each chord in the progression.

[Note: Parenthesized notes are non-harmonic to the individual chord but *harmonic* to the key area. Their use is popular with or without resolution by step in this context.]

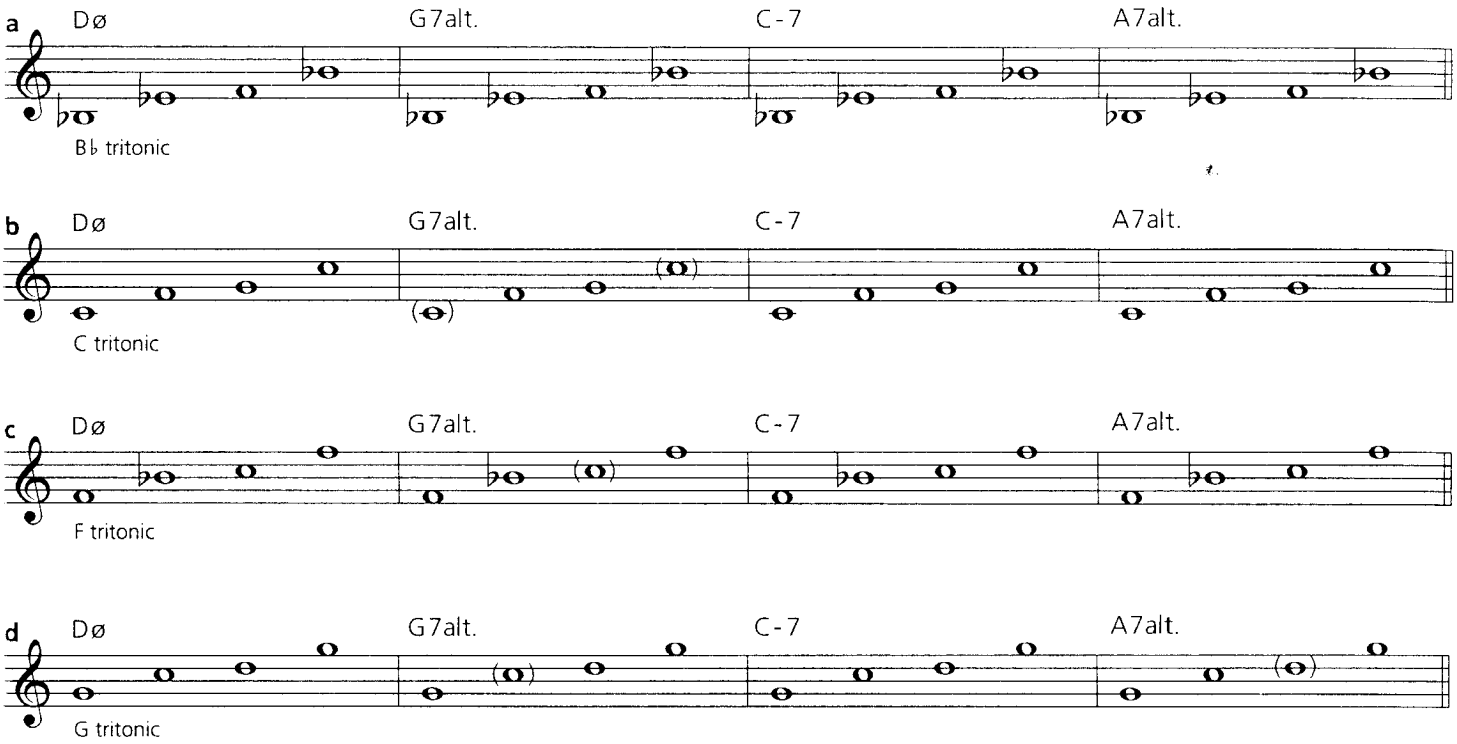
Example V:32

Major key



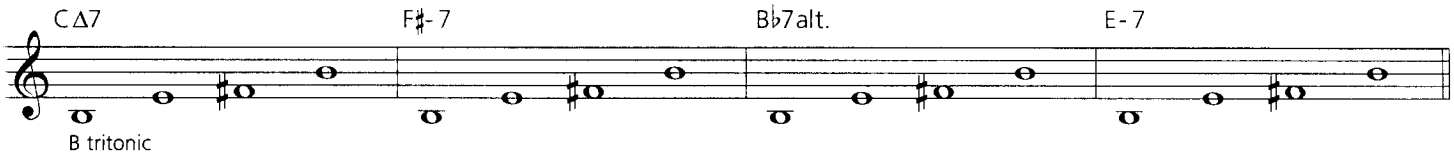
Example V:32 (continued)

Minor key



A single tritonic scale may work on two or more consecutive *unrelated* chords in a progression as well.

Example V:33



Therefore, tritonic scales may be selected and assigned on a per-chord basis or per-key-area basis.

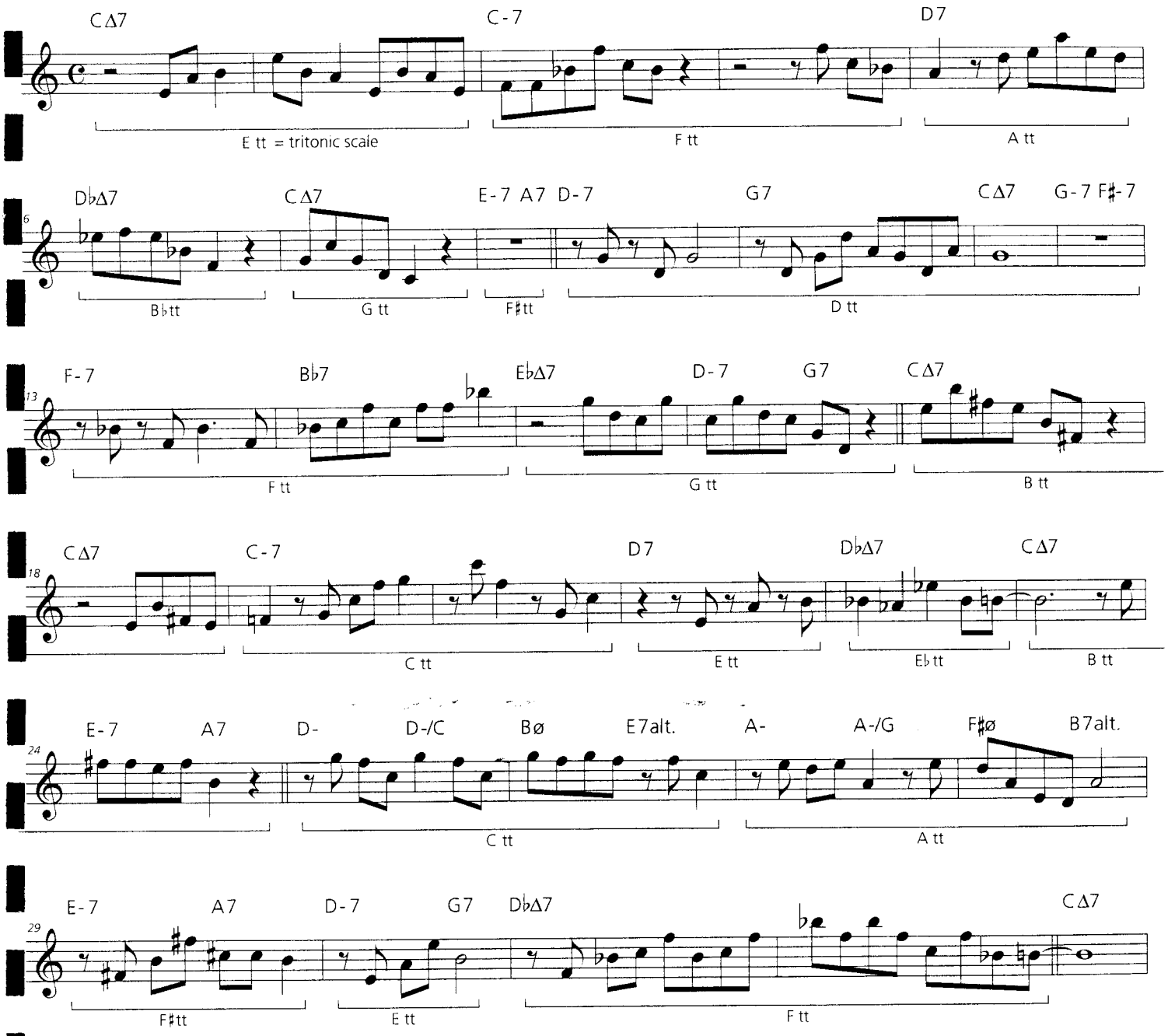
Soloing With Tritonic Scales, Exercises #1 and 2

(Begin with individual chords, then chord patterns and tune progressions.)

Select a harmonic setting, tempo and mode of accompaniment. Assign harmonic tritonic scales on a per-chord or per-key-area basis. Using the play/rest approach, improvise in the following ways throughout the solo:

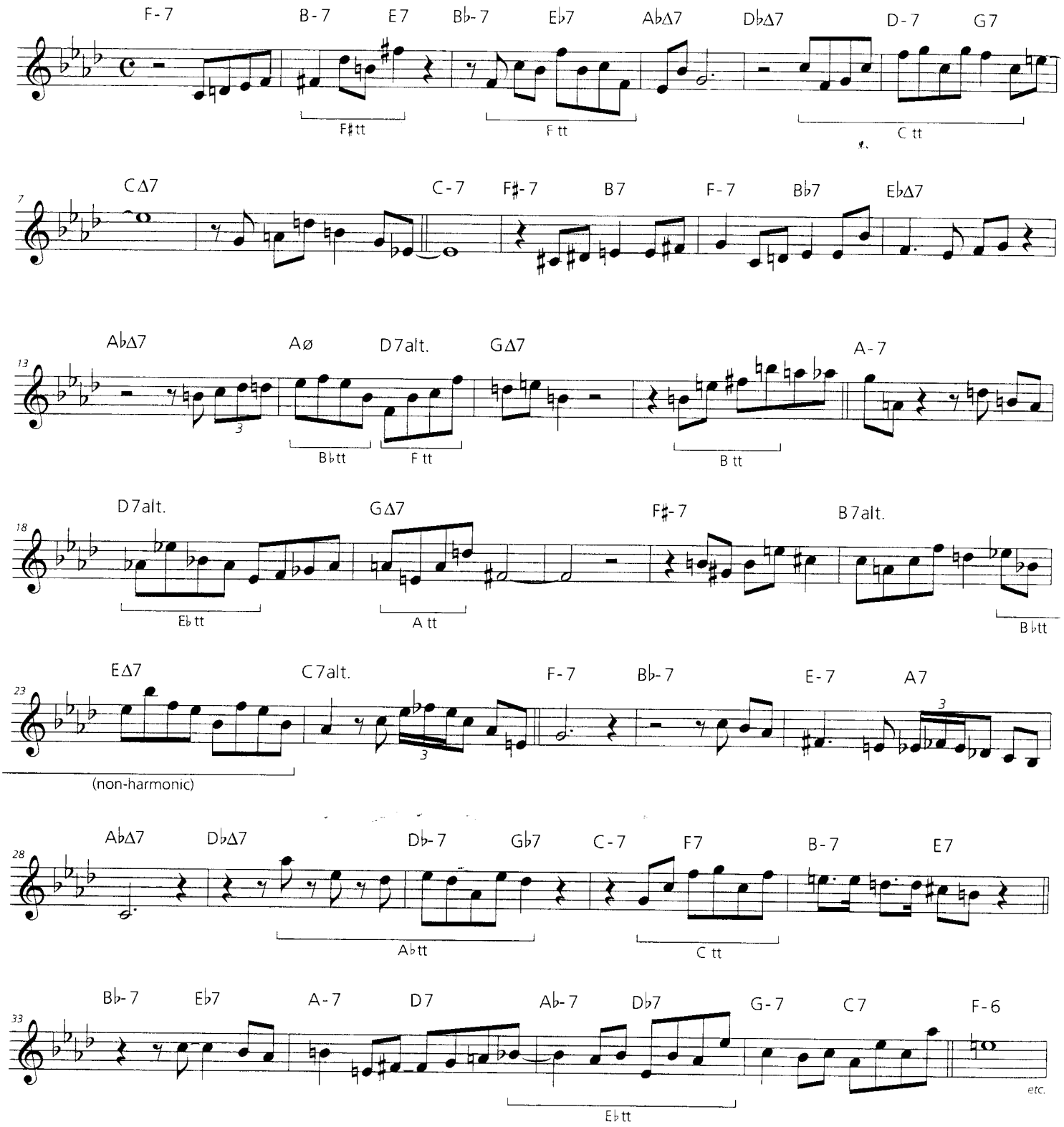
1. Use only the notes of the assigned tritonic scales.

Example V:34R



2. Use the assigned tritonic scales at will.

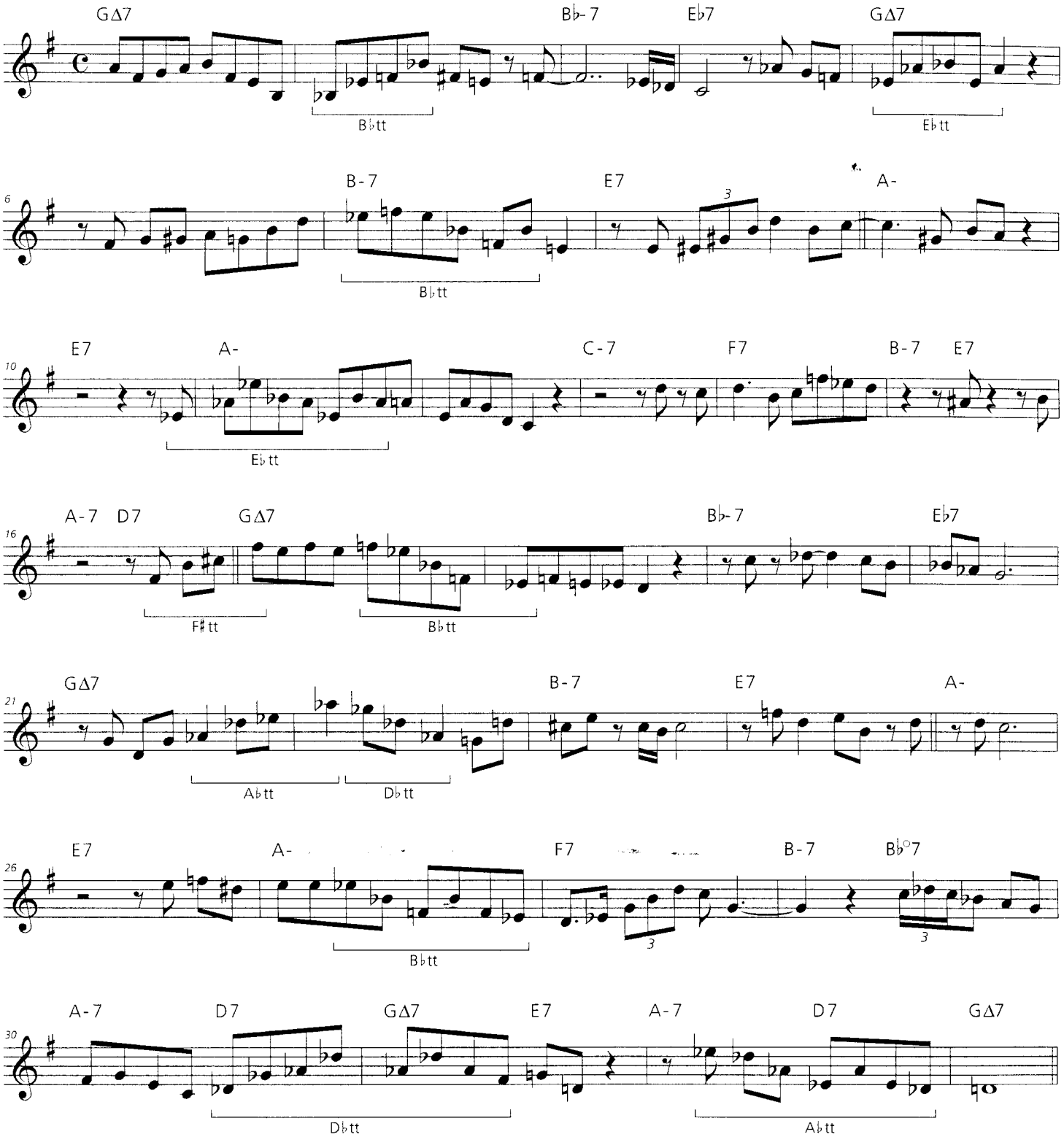
Example V:35R



Non-Harmonic Tritonic Scales

After learning to solo with harmonic tritonic scales, try them as a source for creating non-harmonic melody. Review the musical considerations for non-harmonic playing in Section V, Non-Harmonic Triads, and practice the suggested exercises using tritonic scales instead of triads. (See pages 147-151.)

Example V:36R



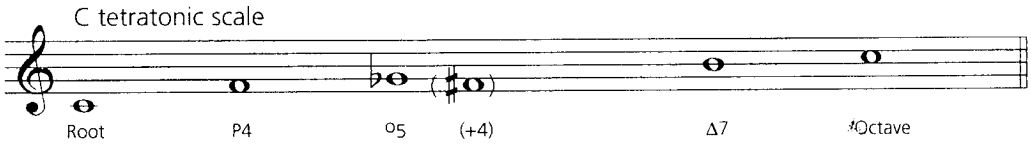
Example: Daily Practice Schedule - Tritonic Scales

1. 20 minutes using scale patterns on individual tritonic scales.
2. 20 minutes improvising on individual tritonic scales.
3. 20 minutes soloing with tritonic scales, exercise #1.
4. 20 minutes soloing with tritonic scales, exercise #2.
5. 30 minutes soloing with non-harmonic tritonic scales.
6. 10 minutes on the spirit and mood of the music.

Tetratonic Scales (TRT)

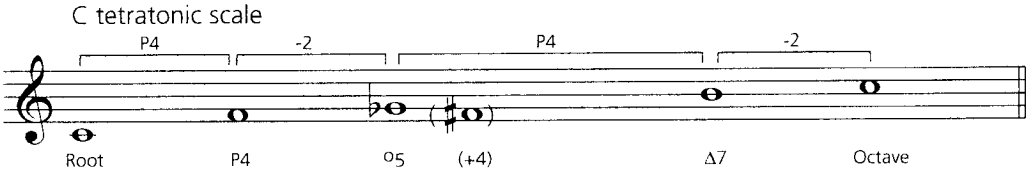
One common tetratonic scale (4-note scale) consists of the following scale degrees: root, perfect 4th, diminished 5th, major 7th, octave.

Example V:37



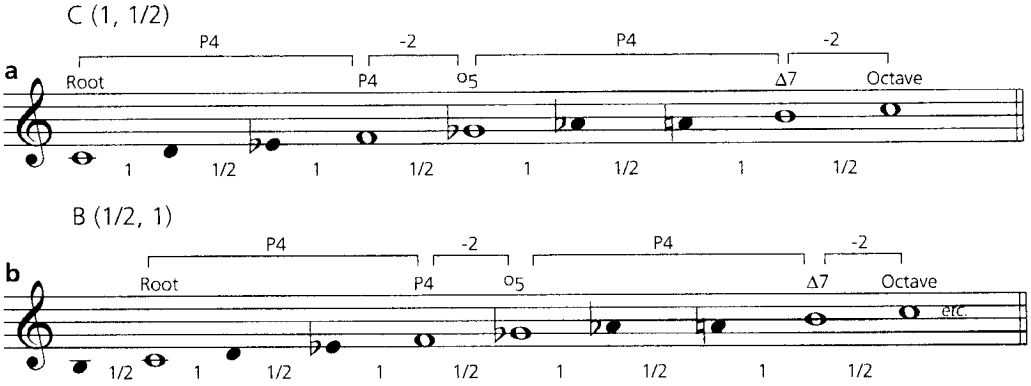
This formula produces a symmetrical (repeating) arrangement of intervals, i.e. perfect 4th, minor 2nd, perfect 4th, minor 2nd.

Example V:38



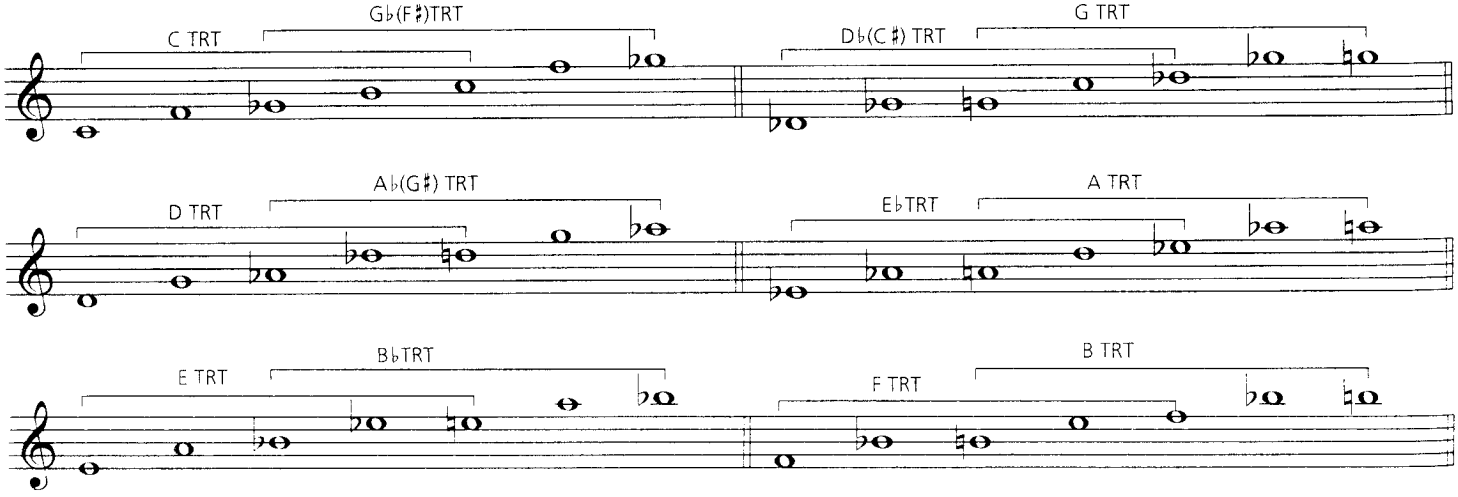
This particular tetratonic scale can also be derived from the whole-step/half-step and half-step/whole-step scales. It can be built (found) on the root, -3rd, °5th, and M6th of the 1, 1/2 scale, and on the -2nd, M3rd, P5th and -7th of the 1/2, 1 scale.

Example V:39



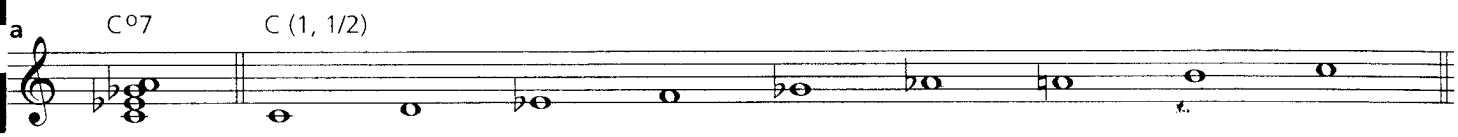
There are a total of 6 different tetratonic scales using the above interval formula. They are: C, D♭, D, E♭, E and F. The G♭ (F♯) tetratonic scale is an inversion of the C tetratonic scale, and vice-versa. The G tetratonic scale is an inversion of the D♭ (C♯) tetratonic scale and vice versa. The G♯ (A♭) tetratonic scale is an inversion of the D tetratonic scale, and vice versa. The A tetratonic scale is an inversion of the E♭ tetratonic scale, and vice versa. The B♭ tetratonic scale is an inversion of the E tetratonic scale, and vice versa. And, the B tetratonic scale is an inversion of the F tetratonic scale, and vice versa.

Example V:40

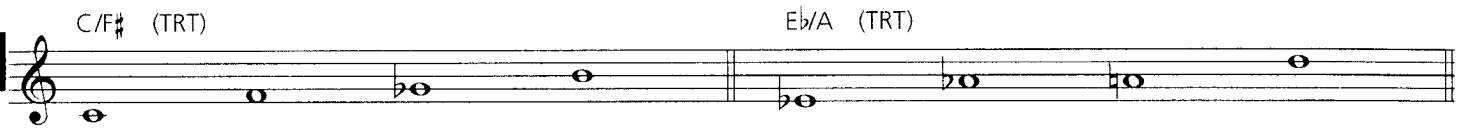


The tetratonic scale can be used as a completeley harmonic source to derive melody on any chord to which a whole-step/half-step or half-step/whole-step scale can be applied as a conventional chord scale, i.e., on diminished chords (1, 1/2) and dominant 7 chords (1/2, 1) only.

Example V:41



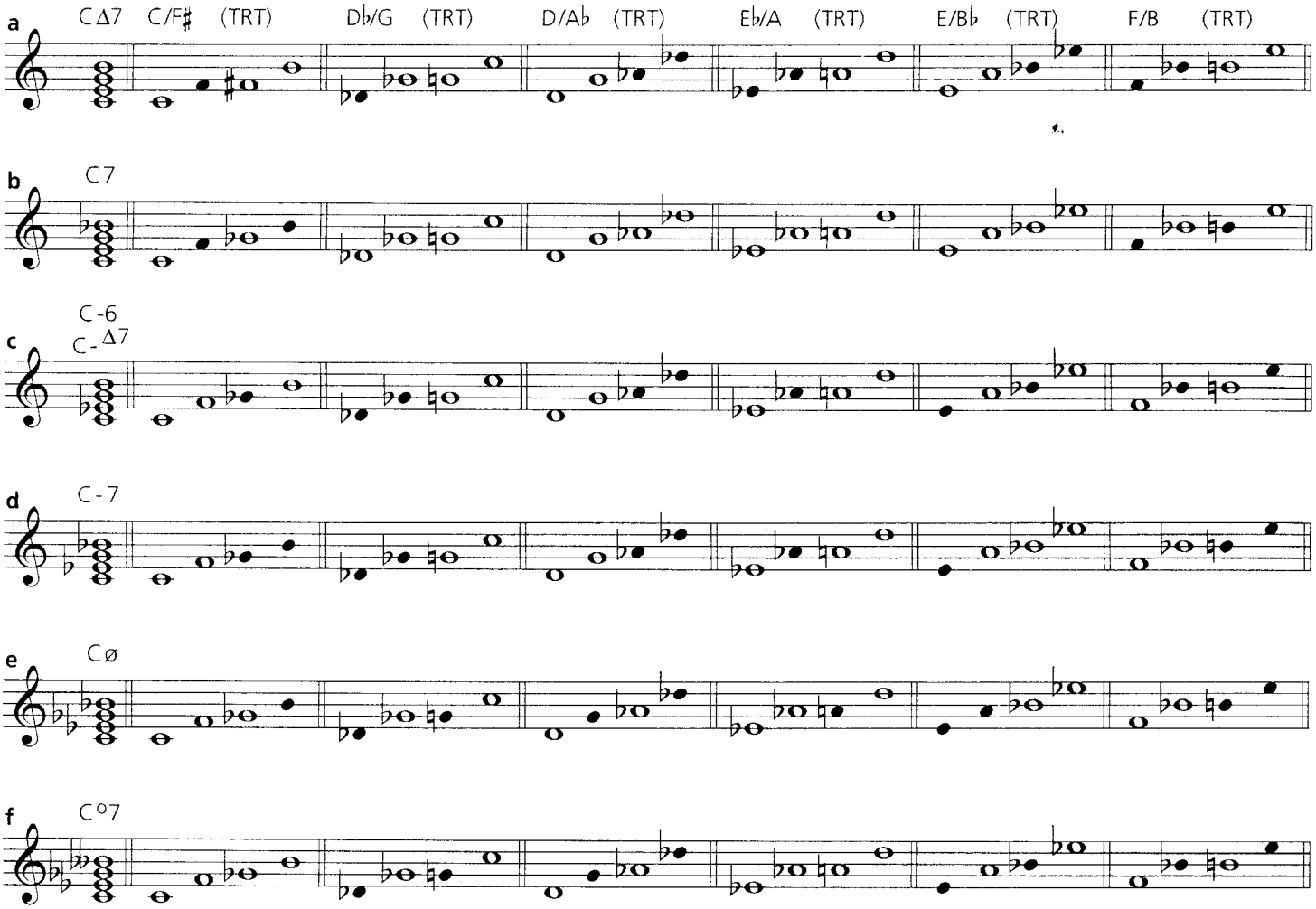
The tetratonic scales which are completely harmonic to the above chord and scale are as follows:



The tetratonic scales which are completely harmonic to the above chord and scale are as follows:

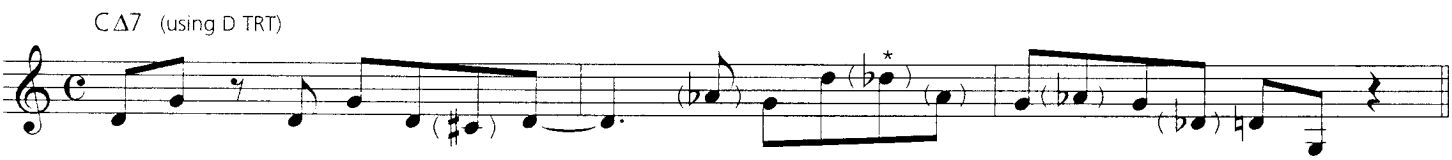
However, tetratonic scales can also be effectively used as non-harmonic sources to derive melody on any chord, and at least 2 notes (sometimes 3) will always be harmonic to the chord.

Example V:42



Melodies derived from the tetratonic scale will produce wide intervals and, therefore, very angular melodic curves, similar to the tritonic scale previously discussed. The minor 2nd interval in the tetratonic scale also allows stepwise motion (chromatic), as well as a strong, smooth way of resolving non-harmonic notes.

Example V:43

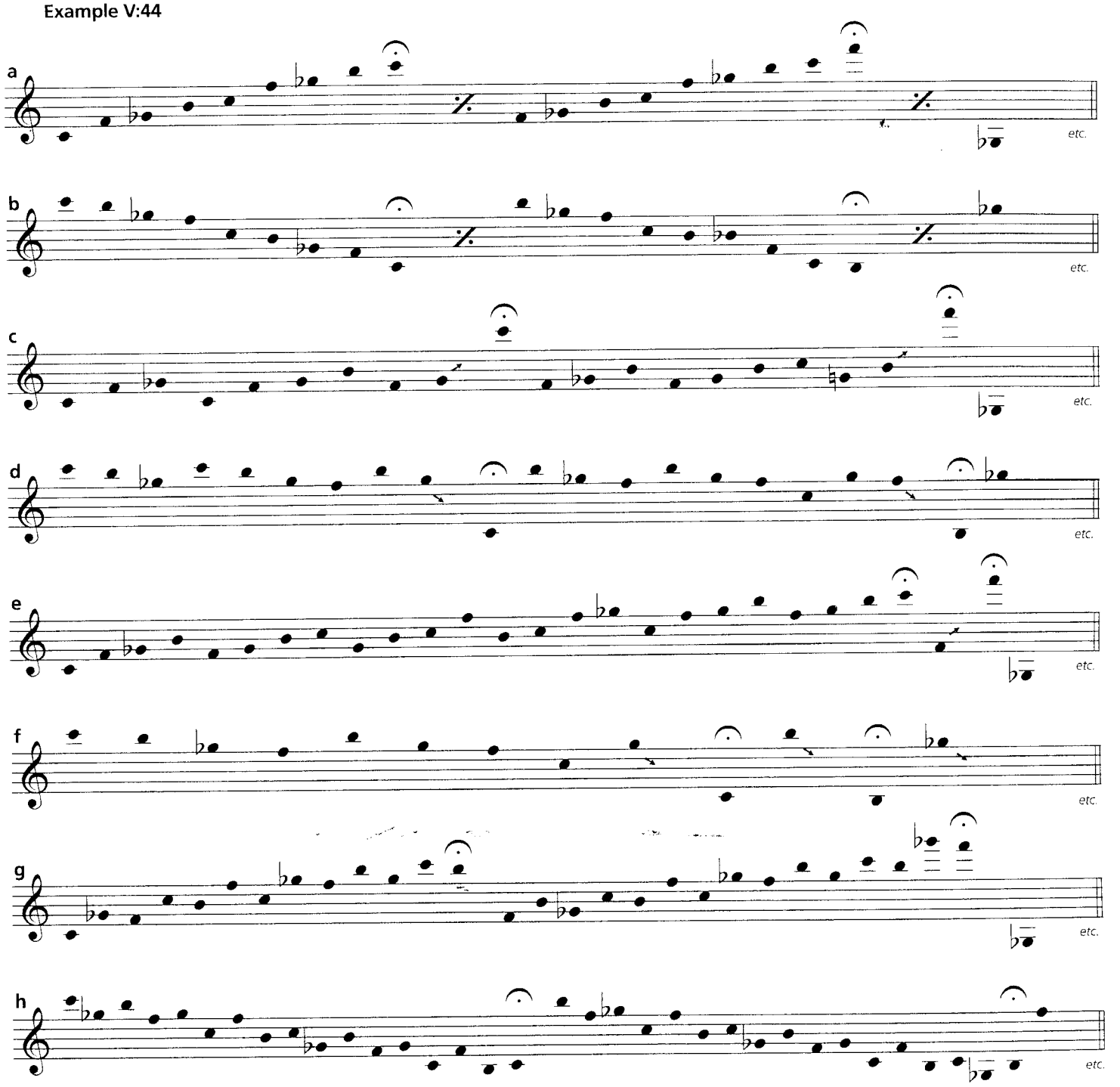


*[Note: Parenthesized notes are non-harmonic to the chord, but because of the strength of this tetratonic scale, non-harmonic notes need not always resolve by 1/2 step.]

Tetratonic Scales, Exercises #1-6

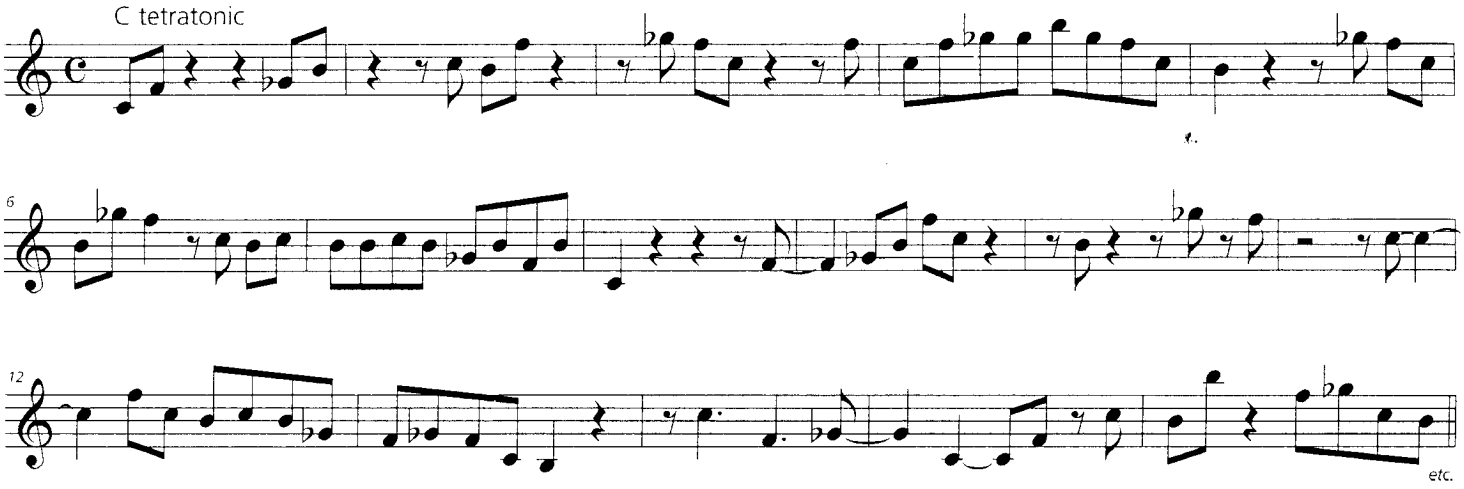
1. Begin by practicing the 6 tetratonic scales on your instrument using various scale-pattern exercises.

Example V:44



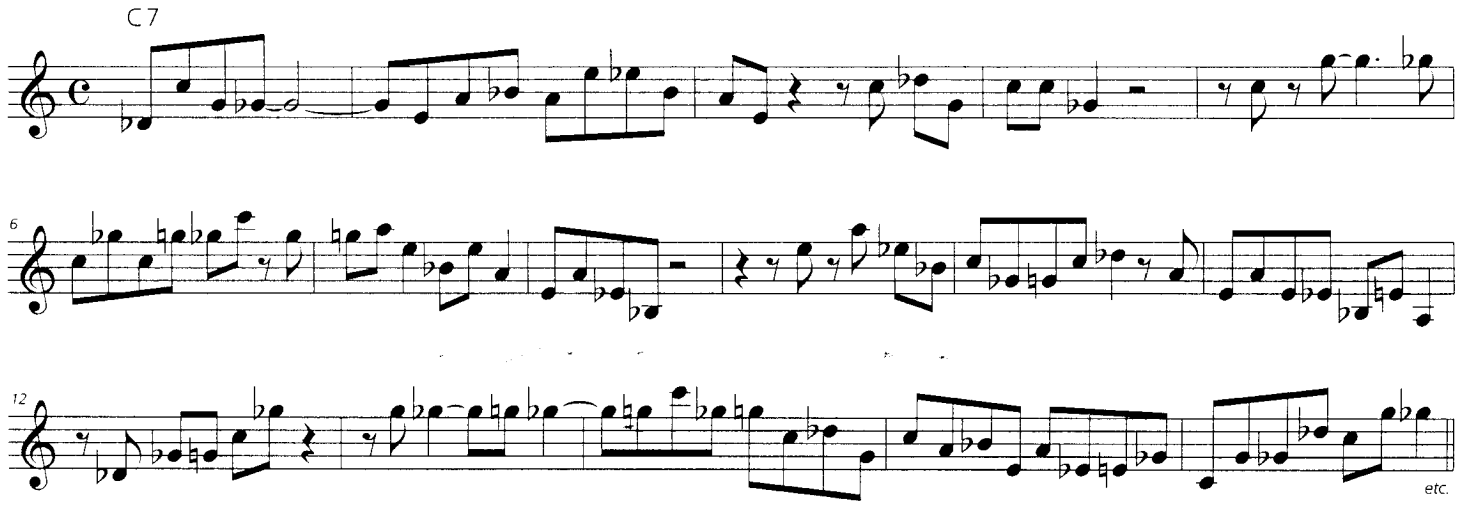
2. Practice improvising for several minutes on each individual tetratonic scale *without* applying it to a chord. Practice with and without a tempo.

Example V:45R



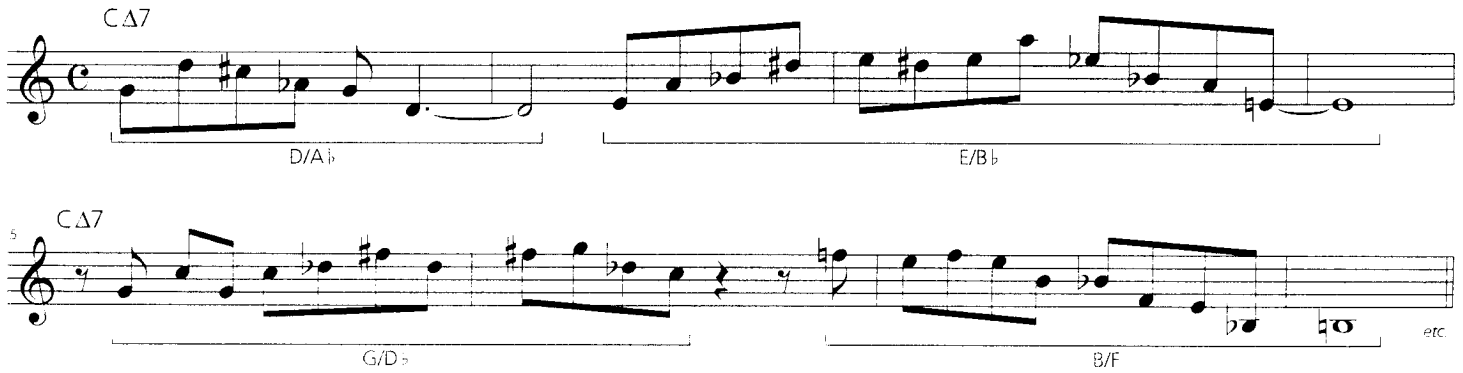
3. Using a comping tape, practice soloing on individual dominant 7th and diminished 7th chords only, using completely harmonic tetratonic scales. E.G., on C7, E♭7, G♭7, A7, D♭°7, E°7, G°7, and B♭°7, use the D♭/G and E/B♭ tetratonic scales.

Example V:46R

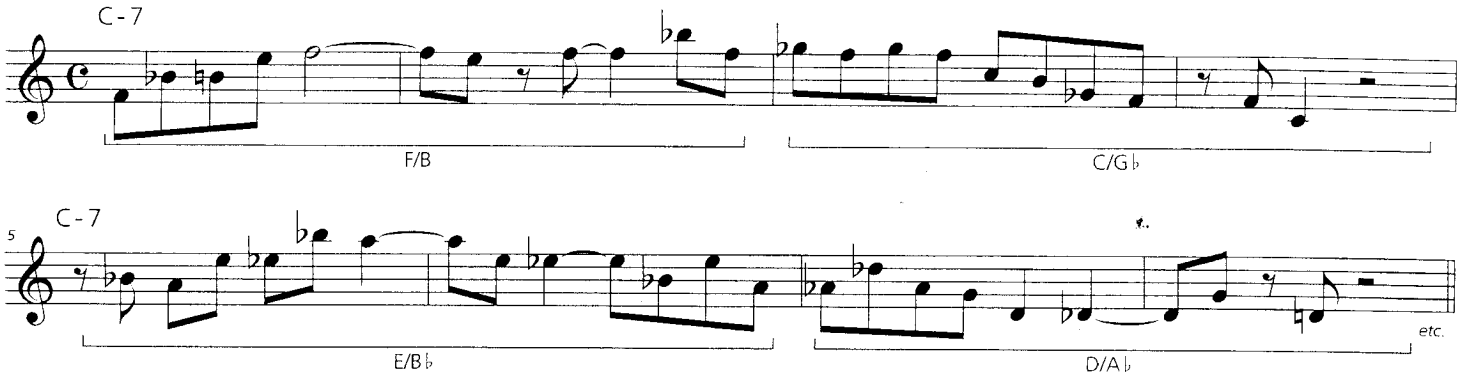


4. Using a comping tape, practice applying various non-harmonic tetratonic scales on individual chords.

Example V:47R

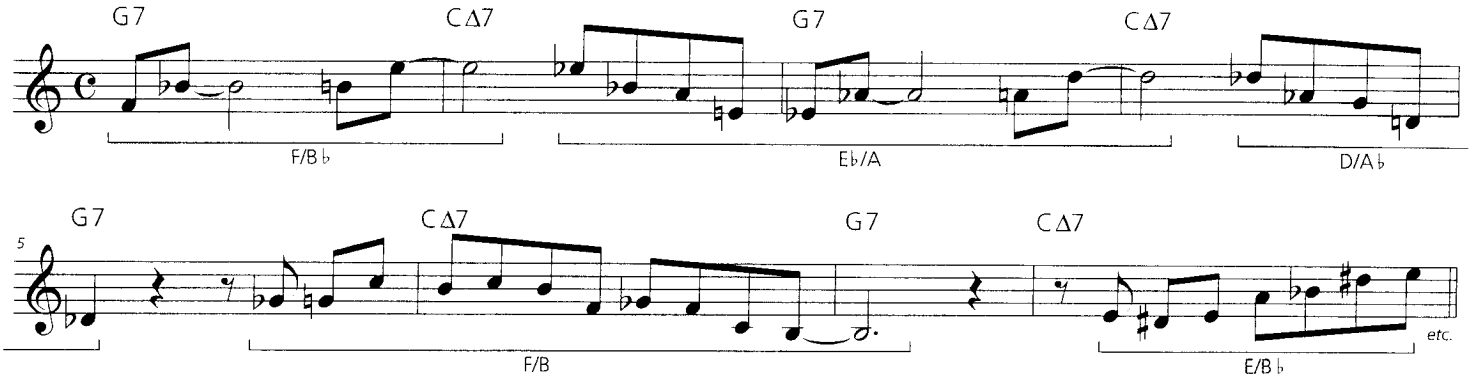


Example V:48R

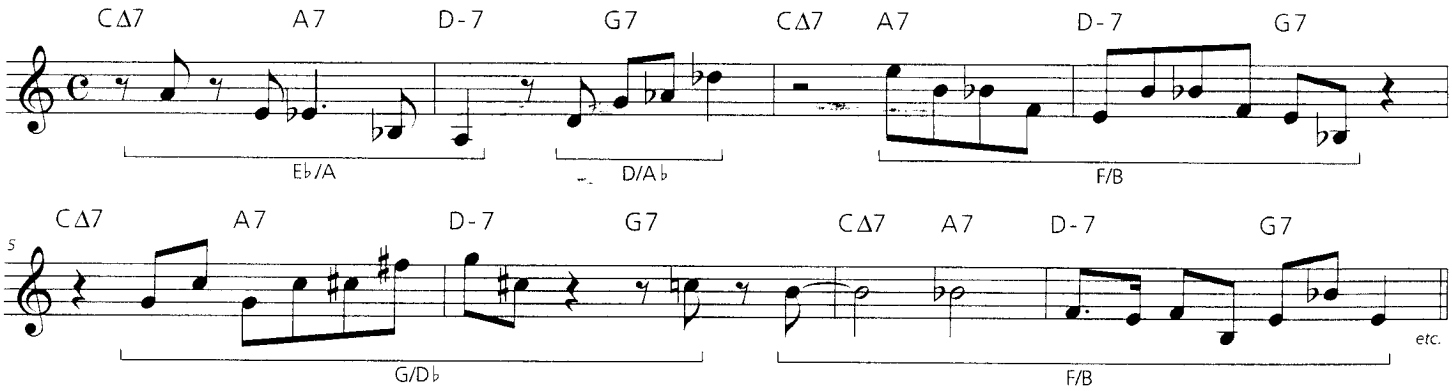


5. Using a comping tape, practice applying harmonic and non-harmonic tetratonic scales to chord patterns.

Example V:49R

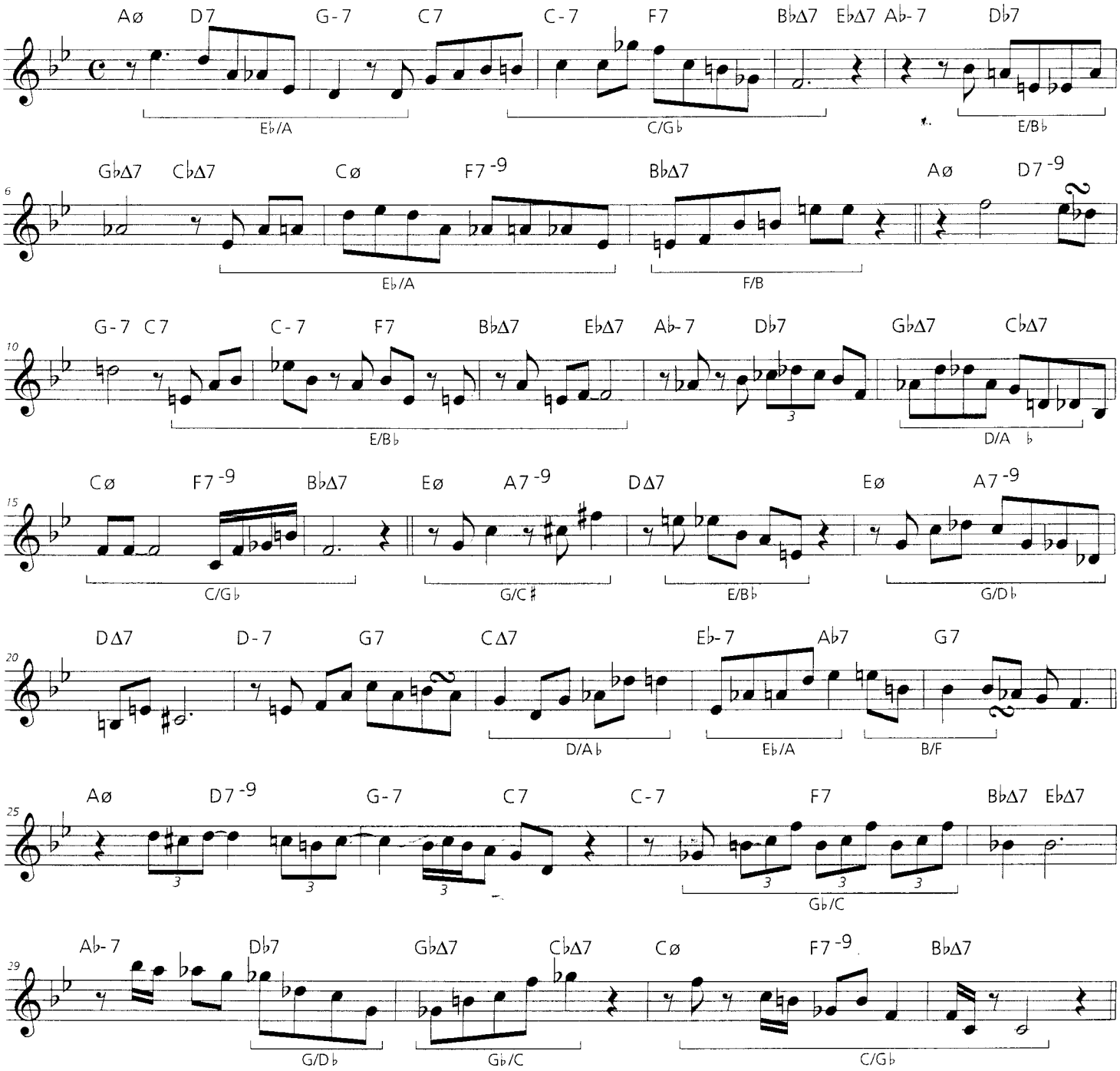


Example V:50R



6. Using a comping tape, practice applying harmonic and non-harmonic tetratonic scales to tune progressions.

Example V:51R



Example: Daily Practice Schedule - Tetratonic Scales

1. 15 minutes on exercise #1.
2. 15 minutes on exercise #2.
3. 15 minutes on exercise #3.
4. 15 minutes on exercise #4.
5. 15 minutes on exercise #5.
6. 30 minutes on exercise #6.
7. 15 minutes on the spirit and mood of the music.

About the author

Hal Crook began studying music at the age of 5. He graduated summa cum laude from Berklee College of Music in 1971 with a Bachelor of Music Degree in Composition and Arranging. Hal is a former member of the Phil Woods Quintet and currently tours with his own band and teaches at Berklee. He lives with his wife Joyce and their daughter Zoe in Attleboro, Massachusetts.

Hal Crook Discography

Phil Woods Quintet

+ Flash, Concord

* All Bird's Children, Concord

* Live At Catalina's, Milestone

* September Song (release pending)

Phil Woods' Little Big Band

* Evolution, Concord

* Real Life, Chesky

Jerry Bergonzi / Hal Crook Quintet

* Conjunction, Konnex

* XO, Outland

Nick Brignola (with Kenny Barron, Randy Brecker)

What It Takes, Reservoir Music

Tommy Flanagan / Phil Woods

Here's To My Lady, Chesky

Herb Pomeroy Big Band

Pramlatta's Hips, Shiah

Jay Branford Septet

+ Seven Point Perspective, Accurate

Dick Johnson's Swingshift

Swingshift, Concord

Greg Abate Quartet (with James Williams, Rufus Reid and Kenny Washington)

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* Hello Heaven, Omnisound

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* appears as performer/composer/arranger

+ appears as performer

appears as composer/arranger

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